(2)

NAVAL POSTGRADUATE SCHOOL
Monterey, California

THESIS

TRIGGERS OF THE GREAT DEPRESSION:
COMPARING ECONOMIC CLIMATES IN THE
1920s WITH THE 1980s

by

Hidetoshi Fujita

June 1991

Thesis Advisor: Francois Melese

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1a REPORT SECURITY CLASSIFICATION UNCLASSIFIED	1b RESTRICTIVE MARKINGS
2a SECURITY CLASSIFICATION AUTHORITY	3 DISTRIBUTION / AVAILABILITY OF REPORT
2b DECLASSIFICATION / DOWNGRADING SCHEDULE	
4 PERFORMING ORGANIZATION REPORT NUMBER(S)	5 MONITORING ORGANIZATION REPORT NUMBER(S)
6a NAME OF PERFORMING ORGANIZATION Naval Postgraduate School 6b OFFICE SYMBOL (If applicable)	7a NAME OF MONITORING ORGANIZATION Naval Postgraduate School
6c ADDRESS (City, State, and ZIP Code) Monterey, California 93943-5000	7b ADDRESS (City, State, and ZIP Code) Monterey, California 93943-5000
8a NAME OF FUNDING / SPONSORING ORGANIZATION 8b OFFICE SYMBOL (If applicable)	9 PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER
8c ADDRESS (City, State, and ZIP Code) Naval Postgraduate School Monterey, California 93943-5000	10 SOURCE OF FUNDING NUMBERS PROGRAM ELEMENT NO / PROJECT NO / TASK NO / WORK UNIT ACCESSION NO

11 TITLE (Include Security Classification)
TRIGGERS OF THE GREAT DEPRESSION: COMPARING ECONOMIC CLIMATES IN THE 1920s WITH THE 1980s.

12 PERSONAL AUTHOR(S)
Hidetoshi Fujita

13a TYPE OF REPORT	13b TIME COVERED	14 DATE OF REPORT (Year, Month, Day)	15 PAGE COUNT
Masters' Thesis	FROM _____ TO _____	June 1991	76

16 SUPPLEMENTARY NOTATION
The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S Government

17 COSATI CODES			18 SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
FIELD	GROUP	SUB-GROUP	Japan Money/Debtor Nations' problem/Direct investment/Great Depression/Insufficient flow of funds.

19 ABSTRACT (Continue on reverse if necessary and identify by block number)

This thesis examines the similarities in economic climates between the 1920s and the 1980s. It concludes that dangerous economic conditions arise whenever there is an insufficient flow of funds to debtor nations. It is proposed that Japan contribute to the stability of the world economy through an expansion of its imports and, through its global corporations, encouraging continued direct investment abroad.

20 DISTRIBUTION / AVAILABILITY OF ABSTRACT ☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT ☐ DTIC USERS	21 ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED
22a NAME OF RESPONSIBLE INDIVIDUAL Francois Melese	22b TELEPHONE (Include Area Code) (408) 646-2009 22c OFFICE SYMBOL 64/Me

DD Form 1473, JUN 86 *Previous editions are obsolete.* SECURITY CLASSIFICATION OF THIS PAGE

S/N 0102-LF-014-6603 Unclassified

Approved for public release; distribution is unlimited.

Triggers of the Great Depression:
Comparing Economic Climates in the 1920s with the 1980s

by

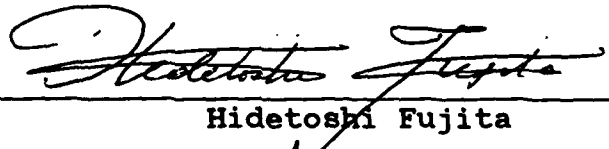
Hidetoshi Fujita
Lieutenant Commander, Japan Maritime Self Defense Force
B.S., Japan National Defense Academy, 1979

Submitted in partial fulfillment of the
requirements for the degree of

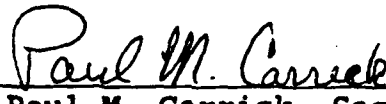
MASTER OF SCIENCE IN MANAGEMENT

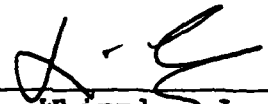
from the

NAVAL POSTGRADUATE SCHOOL
June 1991

Author: 
Hidetoshi Fujita

Approved by: 
Francois Melese, Thesis Advisor


Paul M. Carrick, Second Reader


David R. Whipple, Jr. Chairman,
Department of Administrative Sciences

ABSTRACT

This thesis examines the similarities in economic climates between the 1920s and the 1980s. It concludes that dangerous economic conditions arise whenever there is an insufficient flow of funds to debtor nations. It is proposed that Japan contribute to the stability of the world economy through an expansion of its imports and, through its global corporations, encouraging continued direct investment abroad.

TABLE OF CONTENTS

I. INTRODUCTION

The world economy today is in a period of stable growth which has persisted since 1983. In 1989, the perestroika movement spread from the Soviet Union and led to various structural changes in Eastern European countries. Since the latter half of 1989, the relationship between East and West has changed concretely, as represented by the fall of the Berlin Wall. Hungary and Poland abandoned the one-party despotism of Communism. As 1990 began, observer status for Soviet Union participation in the General Agreement on Tariffs and Trade (GATT) was resolved. In view of these events the world is considered to be facing a significant turning point.

At the same time, however, some problems remain to be resolved, such as the rising tide of protectionism and the insufficient flow of funds to nations with large cumulative debts. Some economists say that current economic conditions are similar to those of the 1920s and that there exists the possibility of another Great Depression. Many factors are considered to have triggered the Great Depression, one of which is the insufficient flow of funds between surplus and debtor nations. This factor provides a primary focus of this study.

Chapter II provides a look back at the Japanese economy during the Showa era (1926-1989) and it describes how Japan developed, especially after the Second World War. Following this chapter, the focus is narrowed to today's economic climate, specifically the role of Japan money[1] and debtor nations' problems. Chapter III, "Japan Money," explores the role of Japan money and Oil money, how they have changed during the past twenty years, and how they have contributed to debtor nations' problems. Chapter IV, "Debtor Nations' Problems," describes the situation in debtor countries and examines the main factors contributing to those nations' problems.

Chapter V, "The Lessons of History," describes problems, such as the insufficient flow of funds to debtor nations before World War II and some determinants of the Great Depression. The problem of an insufficient flow of funds to debtor nations exists today, and is considered by some to have been the main trigger of the Great Depression.[2] Chapter VI, "A Comparison of the 1920s and the 1980s," examines the aggregate global economy in the 1920s and in the 1980s.

---

[1]In this thesis Japanese long-term and short-term capital flows to foreign countries are defined as "Japan money."

[2]For a good discussion of the main trigger of the Great Depression, see Kanamori, Hisao. "Sekai Daikyoukou eno Keikoku," Toyokeizai Shinpousya, p.38-46, 1989.

Chapter VII, "Economic Roles for Japan," describes Japan's role as an economic superpower,[3] poised to play a role in helping to create a global economic environment which will avoid the same conditions that led to the Great Depression and ultimately to the Second World War.

[3]Japanese economy is still half the size (in terms of GNP) of the U.S., but growing (see Figure 1-1 and 2-2).

II. THE JAPANESE ECONOMY IN THE SHOWA ERA (1926-1989)

During the Showa era[4] Japan faced numerous economic challenges but was able to overcome them and eventually attain steady and healthy expansion. During the first half of the Showa era, in the midst of grim international conditions such as the Great Depression, Japan was directly confronted by harsh economic realities, some of which ultimately led to the Second World War (see Chapter V). At the war's end, Japan's domestic economy was nearly devastated.[5]

After the Second World War, thanks to a favorable international trading climate and the productivity of the Japanese people, Japan's economy started to recover and achieved high levels of growth, overcoming obstacles such as the oil crises and trade frictions, to become the second greatest economic power (in terms of GNP) in the free world. At present, the Japanese economy is characterized by high levels of real income and consumption. As a global power, Japan has reached the point of assuming a vital role, both in

---

[4]The Emperor Hirohito (1901-1989) reigned over the Japanese people during the Showa era. The new era, Heisei, started in 1989 after Emperor Hirohito's death.

[5]For a good discussion of the Japanese economy before WWII, see Nihon Keizai Shinbun, "Zeminaru Nihon Keizai Nyumon," Nihon Keizai Shinbun press, 1985.

qualitative and quantitative terms, in its contribution to world economic stability.

The interval from the end of World War II to 1955 was marked by postwar rehabilitation. Under the new Constitution, the Japanese Government launched a series of policies to liberate the nation from the economic plight left by the Second World War. These policies included:

1. implementation of a priority production system through the establishment of the "Economic Stabilization Board" in 1946;[6]

2. promotion of democratization and competition policies, namely dissolution of the "zaibatsu"[7], and promotion of agricultural land reforms;

3. restriction of government spending (Dodge Line[8]) to curb inflation, and

4. establishment of a favorable (360 yen/US dollar) fixed-exchange rate in 1958.

As a result of these policies, the Japanese economy continued to recover to the prewar level, stimulated in part by military demand (not weapons, but supplies) arising from the Korean War. Finally, the economic white paper of 1956[9] declared that the postwar era had ended.

---

[6]After World War II, the reconstruction of key industries such as coal and steel provided the foundation for the subsequent development of other industries.

[7]Zaibatsu means a monopolistic enterprise such as Mitsui, Mitsubishi, Sumitomo, and Yasuda before World War II.

[8]The restrictive monetary policy for stable economic growth that the U.S. minister Dodge, supervised in Japan in 1949.

[9]Issued by Economic Planning Agency, Japanese Government.

Having recovered from immediate postwar conditions, Japan's economy went on to achieve high-level Gross National Product (GNP) growth at an average rate of 10% or greater during a succession of prosperous periods--"Jinmu Keiki" (1954 to 1957), "Iwato Keiki" (1958 to 1961) and "Izangi Keiki" (1965 to 1970)--although each of these periods was also punctuated by business recessions.

Beginning in 1960, Japan's high level of growth was supported by a boom in plant and facilities investments, under the slogan "Investment Calls for More Investment," and by a surge in domestic consumption. From 1965 onward, there was a persistent surplus in Japan's international balance of payments.

In the 1970s, the world economy was rocked by disruptions, such as the dissolution of the international currency structure (the shift to the floating exchange rate system in 1973) and two oil shocks in succession (1973 and 1979). In the wake of the "Boom to Rebuild Japan" and the "First Oil Shock," Japan's economy was plagued by numerous difficulties, including sharp commodity price increases leading to merchandise trade deficits, stagflation, structural recession of industries, and wide-scale government budget deficits.[10]

---

[10]In Keynesian model, planned expenditures on consumption (C), investment (I), government (G), and net export (X-M) add up to planned aggregate expenditures (Y). Y is equal to the sum of C, saving (S), and tax (T).

$$Y = C + I + G + (X-M) = C + S + T$$

$$\text{Net foreign Investment} = (X-M) = (S-I) + (T-G)$$

Thus, government budget deficits contribute to trade deficits

Thanks to the concerned response and flexibility of corporations and private citizens alike, Japan was able to transform its industrial structure in the areas of technological development and energy conservation. The Japanese economy thus overcame inflation, strengthened its international competitiveness and rebuilt a foundation for continued growth.

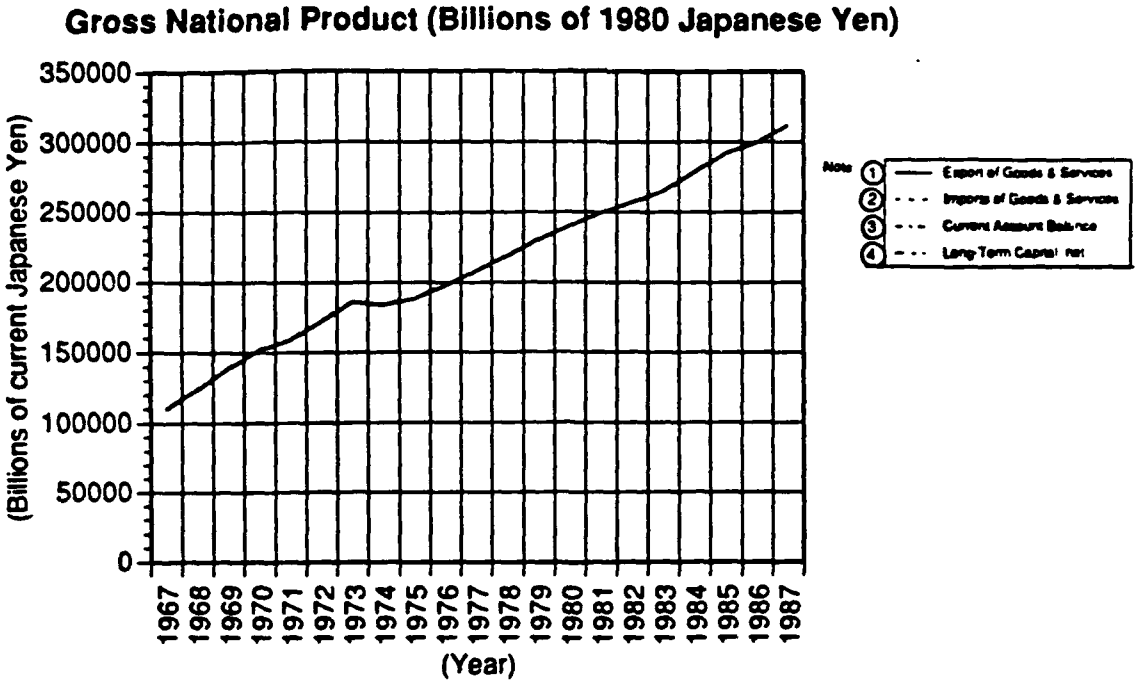
In the mid-1980s the U.S. trade deficit began to widen while the trade surpluses of Japan and West Germany expanded, generating imbalances in external-payment positions among the advanced nations (see Figure 1-1 and 1-2). In 1985 international cooperation brought about an extensive realignment of currencies as a response to these imbalances. Japan's economy reacted positively to the steep rise in the value of the yen. The country realized a new form of economic growth led by domestic demand and supported by various administrative and financial measures.[11]

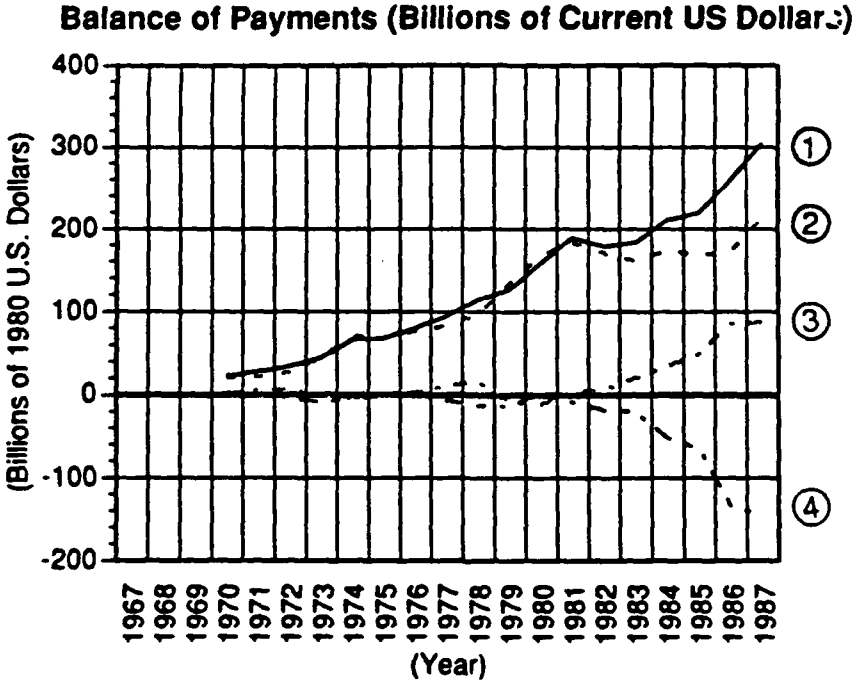
With the start of the Heisei era in 1989, Japan's economy was in the midst of a business upswing more pronounced than any other since the "Izangi Keiki" period (1965 to 1970). As a result of smooth adaptation to an appreciating yen, growth led by foreign and domestic demand has been achieved through

---

if (S-I) is constant.

[11]For a full discussion of these measures, see Yoshitomi Masaru, "Nihon Keizai," Toyokeizai Sinpousya, 1989.

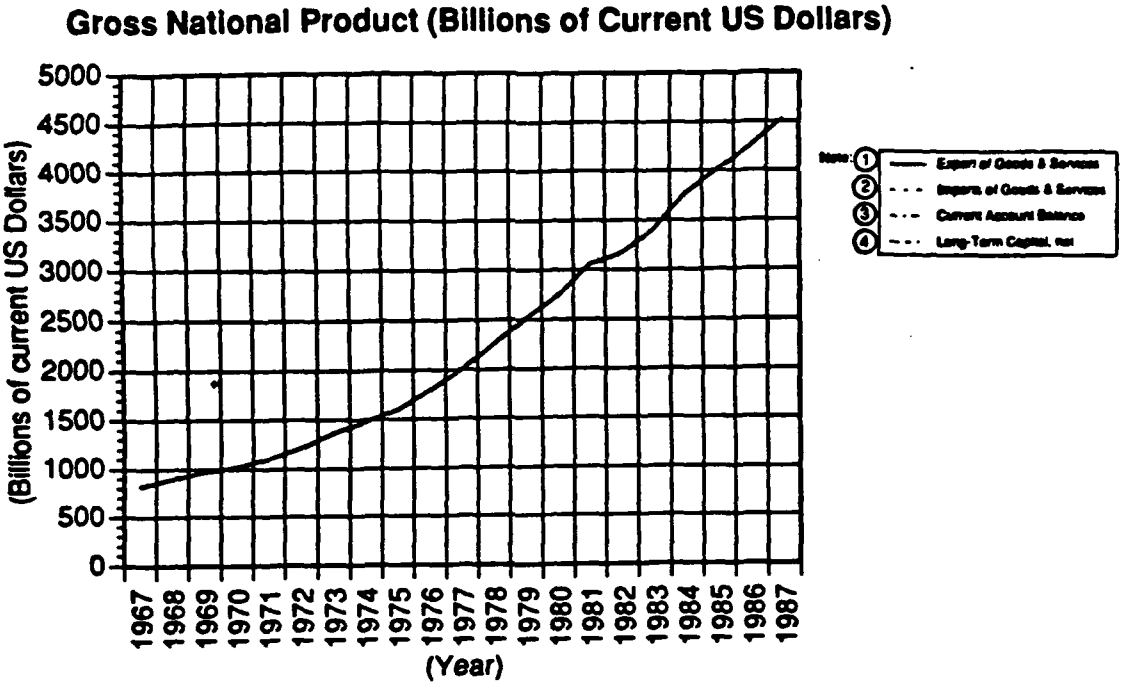


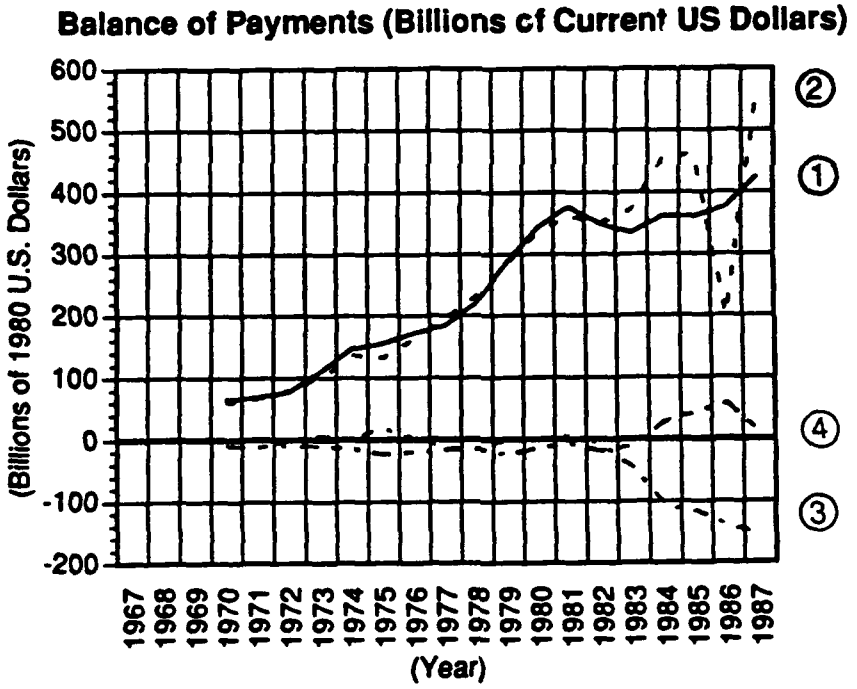


Source: The World Bank, "World Tables", 1988-1989 ed.

Figure 1-1

Japan's Main Economic Indicators



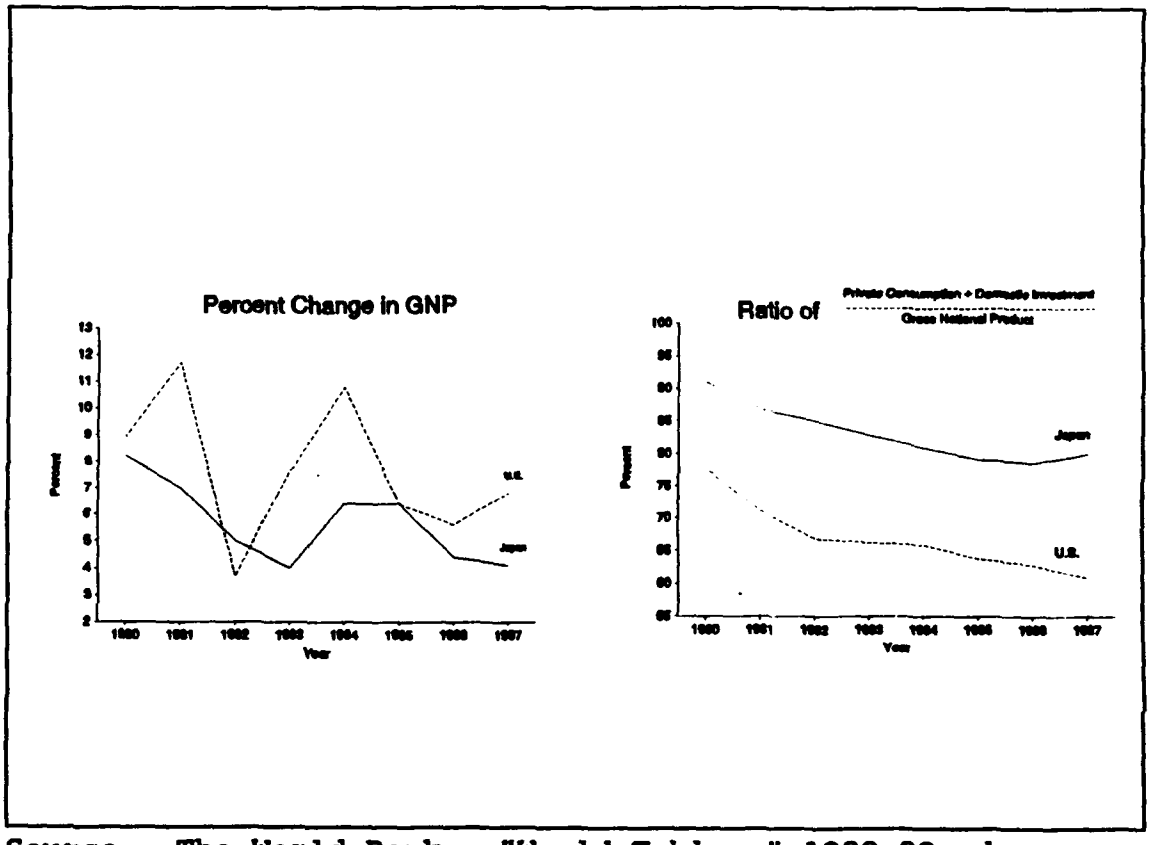


Source: The World Bank, "World Tables", 1988-1989 ed.

Figure 1-2

The U.S. Main Economic Indicators

investments in facilities and through private consumption (see Figure 1-3). Although commodity prices have stabilized, the value of total imports of foreign products have increased dramatically: Imports for 1988 reached $91.84 billion, 39.2% higher than 1987. Yet, Japan remains one of the world's leading creditor nations.



Source: The World Bank. "World Tables:" 1988-89 ed.

Figure 1-3
Comparison of Japan and U.S. Economic Trends

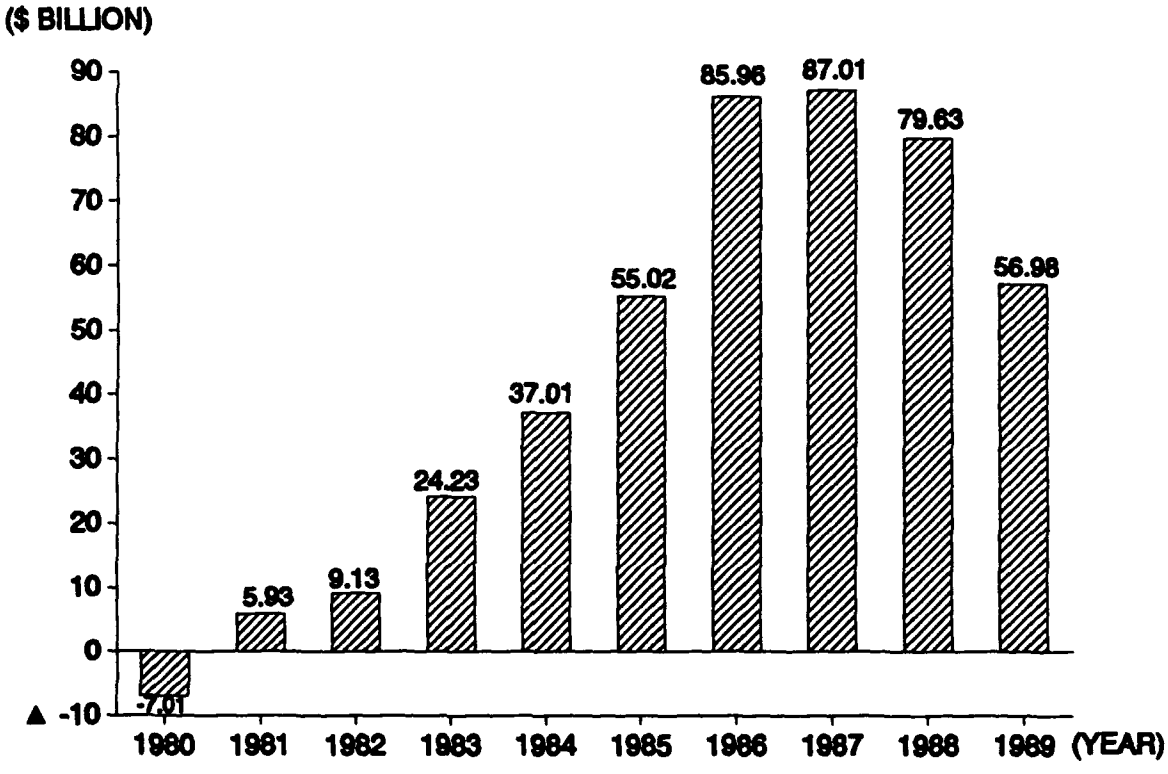
III. JAPAN MONEY

Japan money has a powerful influence on international money markets. An explanation of the difference between Japan money and Oil money is essential to understanding why the probability of defaults by debtor nations has recently increased, as well as the consequences to the world economy if Latin American countries, such as Brazil and Argentina, stopped making repayments on their foreign debts.

A. THE DESTINATION OF JAPAN MONEY

Foreign currency earned through Japanese companies has been increasing year after year. As a result, the current account for 1989 closed with a surplus of $57 billion (see Figure 3-1). This surplus was used mostly for overseas investments, which reached $136.5 billion annual rate in 1987 [Ref. 2]. During the past several years, the surplus in Japan's merchandise trade balance outweighed the negative capital- account balance (see Figure 1-1).

As a result of foreign investment, Japan has built up an enormous amount of net assets overseas. America, once the biggest creditor, became the biggest debtor in 1985, primarily as a result of large current-account deficits in the early 1980s. On the other hand, Japan has gradually become the world's largest global investor, becoming the biggest creditor



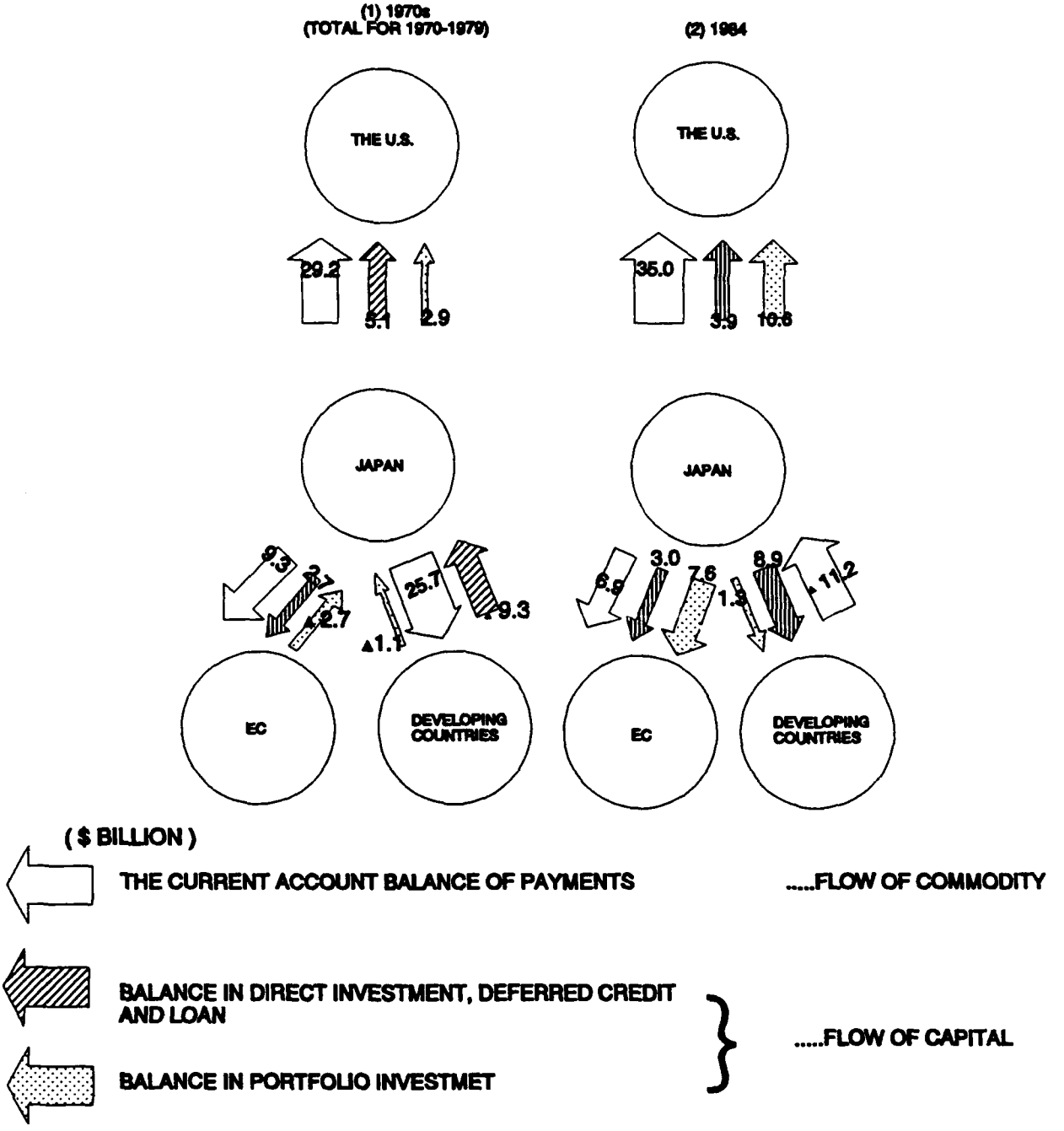
Source: White paper on International Trade Japan 1990

Figure 3-1
Japan's Current Account Balance

nation with $129.8 billion worth of net foreign assets in 1985 [Ref. 3]. Japan's record of overseas investments during 1985 shows that the ratio of portfolio investment was large and the cash flow to the U.S. and the European Community (EC) expanded. Comparing the 1970s with 1985, while the flow of commodities remained approximately the same, the flow of capital changed significantly (see Figure 3-2). While capital investment from Japan to developing countries decreased, that to the U.S. and the EC increased, with a large amount invested in U.S. government bonds.

Historically the U.S. played an important role in leading the world economy. However, American economic growth has slowed, partly as a result of the twin deficits, fiscal and trade. The U.S. fiscal deficit reached a high of $220 billion at the end of 1990 and is forecast to be $318 billion in 1991, primarily due to increasing budgetary spending to bail out the savings and loan industry. Much of the U.S. government budget deficit has been financed by Japanese investment.

U.S. government bonds are regarded as excellent investments by Japanese investors, who have confidence in the American economy and consider the U.S. a low-risk country as compared to developing countries. In addition, the differential between Japanese real interest rates and those prevailing in the U.S. attracted a substantial inflow of Japan money. Over the period 1981-5, U.S. bonds had the advantage



Source: White Paper on International Trade Japan 1986

Figure 3-2
The Flow Of Commodity and Capital Around Japan

over Japan's in terms of adjusted rates of return on invested capital (see Table 3-1). High yields on U.S. bonds over this period and appreciation of the dollar vis-a-vis the yen further enhanced the desirability of U.S. investment.

Worthy of mention is that in 1985 the high value of the dollar, the high cost of money, and the high cost of crude oil were tempered after the G5 meeting. In 1986 the U.S. Federal Reserve Board (FRB) had cut its official central bank rate in four steps from 7.5% to 5.5%, while Japan did the same in an apparent effort to stay in step with the U.S. That action provides some evidence that the U.S. budget deficit partly supported by Japanese investments, could not be sustained without maintaining interest-rate differentials between the two countries (see Figure 3-3).

B. JAPAN MONEY AND OIL MONEY

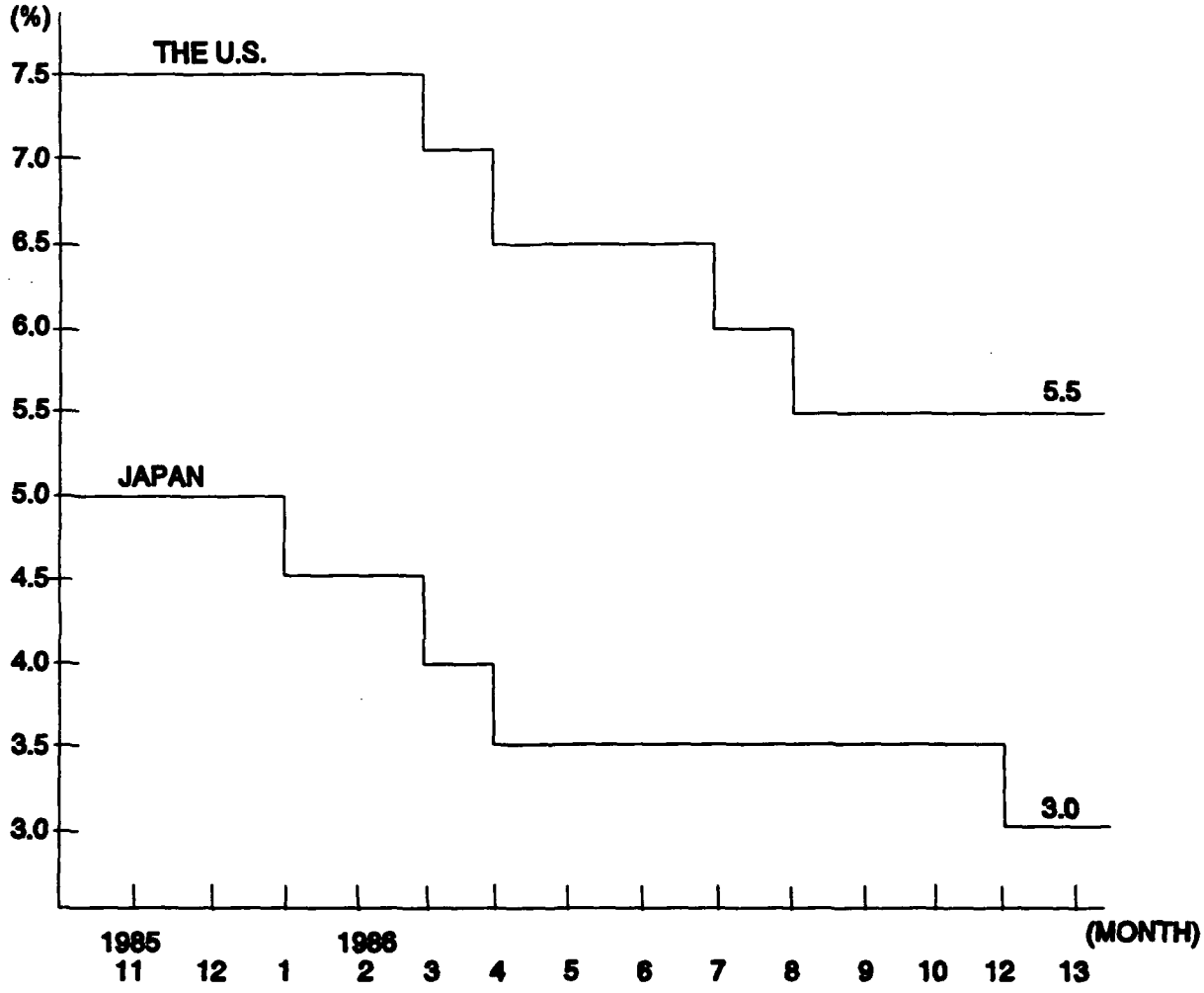
After the outbreak of the Middle East war in October of 1973, the Organization of Arab Petroleum Exporting Countries (OAPEC) threatened oil production cutbacks and embargoes to non-friendly nations, resulting in a subsequent rise in oil prices. After that, the strategy was taken over by the Organization of Petroleum Exporting Countries (OPEC) and the oil price jumped to $34/bbl after the second oil price shock (in 1979-80). Oil prices rose almost 12.5 times due to the two oil crises. Thanks to this, world money became concentrated in the OPEC countries as measured by the world

TABLE 3-1
THE ADJUSTED RATES OF RETURN ON INVESTED BOND IN THE U.S. AND IN JAPAN

(%)

Year		1981	1982	1983	1984	1985
The U.S.	Bond Yield Rate	14.36	23.63	5.97	13.25	19.74
	Foreign Exchange Gain Rate	1.18	2.27	4.83	1.78	▲ 7.32
	Total Rate of Return	15.54	25.90	10.90	15.03	12.42
JAPAN	Bond Yield Rate	10.64	9.69	10.53	9.84	3.92
	Foreign Exchange Gain Rate	—	—	—	—	—
	Total Rate of Return	10.64	9.69	10.53	9.84	3.92

Source: Economic White paper of 1986



Source: White Paper on International Trade Japan 1987

Figure 3-3
Official Central Bank Rate In The U.S. And In Japan

oil import bill. As Table 3-2 indicates, current account payments showed rapid changes during 1974. In particular, OPEC's current account increased sharply to $59.5 from $7.5 billion the previous year.

Oil money collected by the oil-producing countries was used for their own industrial modernization and recycled into developing countries by the way of banks in Europe, America, and Japan. In 1980 the flow of funds to developing countries from OPEC alone reached $44 billion (see Figure 3-4). Total funds to developing countries through the Euromarket, advanced countries, and international organizations such as International Monetary Fund (IMF), World Bank, etc., amounted to $91.2 billion.

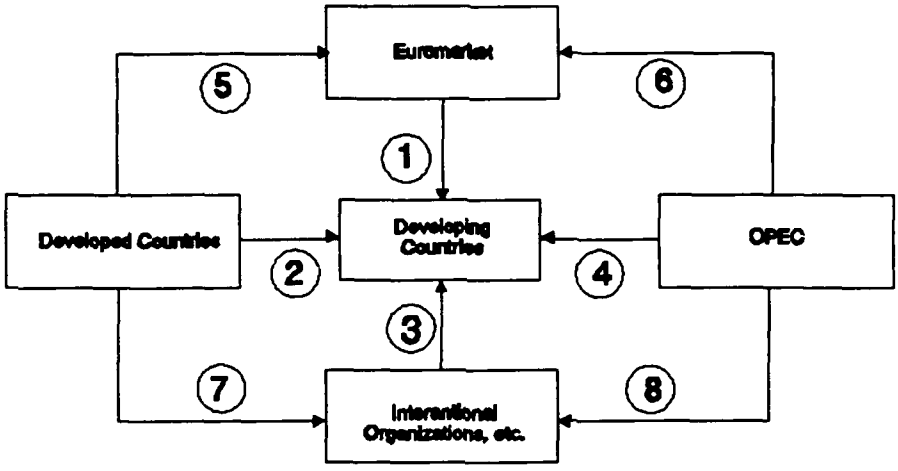
OPEC's role as a supplier of funds did not last long. After the second oil crisis, the advanced countries reduced their demand for oil through conservation and use of more fuel-efficient cars (which incidentally provided a boost to Japan's car manufacturers in terms of foreign sales). These measures, together with the development of oil fields in Mexico, the North Sea and other areas led to competition with OPEC and lower real (and nominal) prices of oil. OPEC's share in the world oil market gradually shrank, and OPEC's current-account balance fell into deficit by $15 billion in 1982 (see Table 3-2). As a consequence, Oil money began withdrawing from the Euromarket and the developing countries (see Figure

TABLE 3-2
CHANGE OF BALANCE OF PAYMENTS IN THE WORLD

($ billion)

Year	OECD	OPEC	Non-oil Production Undeveloped Countries	The Communist Bloc, etc	Total
1970	6.8	▲ 0.5	▲ 8.1	▲ 2.9	▲ 4.7
71	9.9	0.3	▲ 9.8	▲ 2.7	▲ 2.3
72	7.8	1.3	▲ 5.2	▲ 1.9	2.0
73	10.5	7.5	▲ 7.5	▲ 3.5	7.0
74	▲ 26.0	59.5	▲ 26.0	▲ 9.5	▲ 2.0
75	▲ 0.5	27.0	▲ 30.0	▲ 18.0	▲ 21.5
76	▲ 18.0	36.5	▲ 17.5	▲ 13.0	▲ 12.0
77	▲ 24.0	29.0	▲ 12.5	▲ 8.5	▲ 16.0
78	10.0	4.5	▲ 22.5	▲ 9.5	▲ 17.5
79	▲ 28.0	61.0	▲ 38.0	▲ 4.0	▲ 9.0
80	▲ 69.0	115.0	▲ 63.0	▲ 11.0	▲ 28.0
81	▲ 28.0	52.0	▲ 76.0	▲ 10.0	▲ 62.0
82	▲ 28.0	▲ 15.0	▲ 68.0	8.0	▲ 103.0
83	▲ 23.0	▲ 20.0	▲ 37.0	11.0	▲ 69.0
84	▲ 64.0	▲ 19.0	▲ 21.0	11.0	▲ 93.0
85	▲ 72.0	▲ 26.0	▲ 27.0	3.0	▲ 122.0

Source: White Paper on International Trade Japan 1986



($ billion)

Year		1970	74	79	80	81	82	83	84
To Developing Countries	1 From Euromarket	3.0	10.0	23.0	35.1	30.5	14.9	1.6	13.0
	2 From Developed Countries	12.9	14.03	41.47	44.77	50.71	42.67	36.93	40.13
	3 From International Organizations	1.78	4.65	10.4	12.64	13.65	14.12	14.79	15.97
	4 From OPEC	0.36	3.02	4.93	8.26	7.61	4.58	4.29	3.71
The World - Developing Countries		19.89	35.04	85.78	91.15	109.76	97.41	99.26	88.16
To Euromarket	5 From Developed Countries	▲0.79	▲6.33	▲6.0	15.6	44.7	51.5	27.3	18.4
	6 From OPEC	0.5	24.0	30.2	34.9	▲1.0	▲26.4	▲23.1	3.7
To International Organizations	7 From Developed Countries	1.55	3.04	6.24	9.05	7.48	9.27	9.04	9.21
	8 From OPEC	——	——	1.17	0.87	0.85	1.31	1.11	0.83

Source: White Paper on International Trade Japan 1986

Figure 3-4
The Flow of Funds To Developing Countries

3-4). By 1982, the problem of debt repayment in developing countries began to emerge (see Chapter IV).

Japan money has replaced much OPEC Oil money since 1982. Japan money, however, has been invested more in U.S. and EC capital markets than in developing countries, whereas Oil money was invested more heavily in developing countries. This is an important distinction between Japan money and Oil money.

Today many developing nations are teetering on the brink of bankruptcy, and their national per capita incomes have dropped considerably. The more interdependent the economies of the world become, the more important it is for advanced countries to encourage economic cooperation with developing nations to sustain the world economy. Japan has an obligation in this regard, and in this way will gain the confidence of the world community.

Under the Official Development Assistance (ODA) program, in 1988 Japan's total economic assistance (ODA + private sector + non-profit organization) amounted to $21.4 billion, or 4.7% higher than a year ago [Ref. 4]. This figure accounted for 21% of the total worldwide flow of funds to developing countries, which was $102.9 billion. Japan has ranked first in the world since 1985 [Ref. 4]. In terms of percentages of GNP, Japanese assistance declined from 0.86% the previous year, to 0.75% [Ref. 4], but it remains above the average for OECD Development Assistance Committee (DAC)

members. Japan is still the world's largest provider of funds for developing countries but not the largest in terms of shares of GNP.

Steady efforts are being made to expand ODA based upon the Fourth Intermediate Goals set in June 1988, which specify that in the five-year period between 1988 and 1992, total ODA is to be increased by more than two times the total for the previous five-year period to above $50 billion. ODA for the first target year of 1988 came to $9.18 billion, a big jump of 22.5% compared to the total of $7.45 billion in the preceding year. That figure came close to the American total of $10.14 billion for the same year. For this reason, ODA as a percentage of GNP also rose from 0.31% to 0.32%. The relative weight of Japan's contribution to the total ODA provided by DAC member countries rose from 17.7% in 1987 to 19% in 1988 [Ref. 5].

Japan became the world's largest provider of economic assistance in 1985, partly because the U.S. private sector recalled funds from developing countries. These credit institutions stopped granting additional loans to countries in Latin America and started collecting (and writing off) their credits.

Although Japan has been ranked first in the world since 1985 in terms of dollars in aid, the nation is seventh (0.75%) in terms of GNP[12] after Australia (1.52%), Holland (1.18%),

[12]The U.S. was ninth (0.36%).

Sweden (1.13%), Norway (1.03%), France (0.99%) and West Germany (0.98%) [Ref. 5]. The U.S. has cut its economic aid, mainly because of the enactment of the Balanced Budget and Emergency Deficit Control Act (the Gramm-Rudman Act). Diminished U.S. aid has motivated other nations, including Japan, to fill the gap. Indeed, Japan is expected to become the world's largest provider of ODA.

IV. DEBTOR NATIONS' PROBLEMS

A significant part of Latin American debt is caused by the declining (real) price of primary products such as agricultural commodities, crude oil and mining. As a result, debt-service ratios (annual interest and principal payments as a percentage of export earnings) remain high in many countries.

A. THE DECLINING PRICE OF PRIMARY PRODUCTS AND ITS INFLUENCE ON DEVELOPING COUNTRIES

On June 6, 1986, Mexico's Minister of Finance announced, "I do not deny the possibility of a moratorium on loan payments" [Ref. 6]. The news shook world money markets, because bankers with huge loans to Mexico were concerned they might sink into bankruptcy if Mexico defaulted on its loan payments.

The same situation with Mexico had previously occurred in August 1982; but various countermeasures, including emergency loans from the IMF and the Bank for International Settlements (BIS) for $4.5 billion and $1.9 billion respectively, helped Mexico toward recovery. Unfortunately, a sharp fall in crude oil prices and the deterioration in Mexico's balance of payments ultimately led the country back into insolvency.

A look back over the pattern of the declining prices of primary products during this period is instructive. In March

1983 OPEC cut its export price by $5/bbl, to $29/bbl, in order to preserve market share. Contrary to OPEC's oil price stabilization policy, oil prices on the international spot market had softened considerably. Therefore, in October 1985, Saudi Arabia, which had played an important role as the swing-producer, could no longer endure the heavy economic burden and decided to increase its oil production. Additionally, in December 1985, OPEC formulated its policy on the basis of "securing and keeping a fair market share" which meant that retaining market share was more important than keeping the oil price up. As a result, the spot market price gradually declined (see Table 4-1).

In early 1986, to recover from the sharp fall in oil prices, OPEC had several meetings. At extraordinary general meetings in March and April of 1986, the agenda was the establishment of an upper limit on oil production and a country-by-country oil production quota. The meetings ended in a stalemate because of conflicting interests.

In any case, the declining price of crude oil would soon have an impact on the world economy. For developed nations and non-oil producing developing countries the less expensive price on crude would lead to lower cost oil imports and help protect their economies from imported inflation.

The trend of non-oil primary product prices in 1985-86 was lower than in the January-March 1984 period, when the index

TABLE 4-1
CHANGE OF OIL PRICE

($/bbl)

	Posted Price	Spot Price		Import Price (CIF Base)
	Arabian Light	Arabian Light	Blend	
1983 Jan - Mar	31.00	29.33	29.20	33.73
Apr - Jun	29.00	28.68	29.73	29.94
Jul - Sep		28.90	30.87	29.52
Oct - Dec		28.35	29.03	29.68
1984 Jan - Mar		28.50	29.55	29.52
Apr - Jun		28.38	29.83	29.46
Jul - Sep		27.68	28.40	29.35
Oct - Dec	28.00	27.68	27.77	29.11
1985 Jan - Mar		27.75	27.67	28.70
Apr - Jun		27.10	26.90	28.34
Jul - Sep		27.25	26.90	27.57
Oct - Dec		27.28	28.07	27.66
1986 Jan - Mar		27.20	17.80	25.91

Source: Economic White paper of 1986

reached a peak of 100 (see Table 4-2). The main factor behind the price decline was slackening consumer demand due to world economic downturn. Lowered consumer demand led to excess supply in the U.S., EC, China, Latin America and South-east Asia, and subsequent declines in non-oil product prices aggravated the debtor nations' problems.

After the international financial crisis originated from Mexico in 1982, harsher economic conditions in debt-ridden Latin America began to make themselves felt. In order to service their debts or obtain further financing from the IMF, Latin American countries have been forced to scale down their government budget expenditures as well as capture foreign currency by increasing exports. For example, In crop year[13] 1981-82, about 48% of wheat exports were from the U.S. and 4% were from Argentina; in 1984-85, U.S. wheat exports declined to 38% while Argentina's crop doubled. Soybeans were the same: U.S. exports fell to 38% while Argentina's doubled, and Brazil produced four times its previous total. The total value of soybean exports in both Argentina and Brazil increased to 27% from 9% over a three-year period [Ref. 7]. Unfortunately, Latin America's increased market supply of these crops led to a steep decline in crop prices.

[13]Crop years run from the start of one harvest to the start of the next.

TABLE 4-2
CHANGE OF PRIMARY PRODUCT PRICES

(1975 = 100)

	Primary Products (include oil)	Primary Products (exclude oil)	Foodstuffs	Non-ferrous Metals
1975	100	100	100	100
76	106	106	105	109
77	107	108	110	107
78	95	97	97	101
79	108	97	95	117
80	143	99	101	118
81	158	98	95	110
82	153	91	86	98
83	146	95	88	104
84	149	98	87	103
85	141	89	78	96
1982 Jan - Mar	153	94	90	102
Apr - Jun	151	93	87	96
Jul - Sep	152	89	83	97
Oct - Dec	157	91	85	99
1983 Jan - Mar	147	90	84	98
Apr - Jun	142	94	88	107
Jul - Sep	145	96	89	107
Oct - Dec	146	97	90	101
1984 Jan - Mar	147	100	89	106
Apr - Jun	146	99	88	104
Jul - Sep	152	98	88	103
Oct - Dec	151	96	83	101
1985 Jan - Mar	152	95	82	102
Apr - Jun	146	92	79	101
Jul - Sep	139	87	76	95
Oct - Dec	131	83	76	88

Source: Economic White paper of 1986

Prices of non-ferrous metals experienced a similar situation. Since Chile increased copper exports to obtain foreign currency, copper prices dropped to $0.60/lb in 1986 from $1/lb in 1980 [Ref. 7].

The declining price of primary products not only decreased export earnings, but also delayed economic growth in developing countries highly dependent on these products. As a result, the debtor nations' problems became more serious.

B. THE DEBTOR NATIONS' PROBLEMS

A main factor contributing to the debtor nations' problems is the declining price of primary products. Also, as Oil money withdrew from the Euromarket, debtor nations found it increasingly difficult to roll over loan payments or borrow funds including interest and principal.

Other factors contributing to the problem are high interest rates and the erosion of U.S. purchasing power caused by weakened economic growth. High interest rates result in a heavier debt-servicing burden, while lowered U.S. purchasing power means a decrease in exports to one of the world's largest consumers.

In spite of a drastic correction in real interest rates and the high dollar beginning in 1986, Mexico's rescheduling of debt repayment in June 1986 suggests that the main factor in the debt problem is the declining price of primary products. Table 4-3 shows that the declining price of crude

TABLE 4-3
INFLUENCE BY A FALL IN THE INTEREST RATE AND IN THE OIL PRICE

($ billion)

	Outstanding Debts (end of 1985) A	Outstanding Debts in Private Sector B	B/A (%)	Influence by a fall of 2% in the Interest Rate	Influence due to a fall of $7/bbl in the Oil Price
Brazil	107.3	90.3	84.2	+ 1.8	+ 1.8
Mexico	99.0	88.2	89.1	+ 1.8	- 3.8
Argentina	50.8	44.1	86.8	+ 0.9	0
Korea	44.5	30.9	69.4	+ 0.6	+ 1.4
Venezuela	33.6	33.4	99.5	+ 0.7	- 3.2
Indonesia	30.9	14.2	46.0	+ 0.3	- 2.4
Philippines	24.8	16.8	67.8	+ 0.3	+ 0.3
Nigeria	19.3	17.0	88.2	+ 0.3	- 3.3
Peru	13.4	8.1	60.7	+ 0.2	- 0.2
Ecuador	8.5	6.3	73.8	+ 0.1	- 0.5

Source: White Paper on International Trade Japan 1986

oil has an increasingly strong impact on the international accounts of debtor nations.

Surprisingly enough, developing countries are responsible for an enormous amount of all debtor nations' accumulated debt, which reached $1,193 billion in 1989 [Ref. 8]. For developing countries, long-term debt is more advantageous than short-term debt (a borrowing period less than a year), and it is ideal for the borrowing period to coincide with a period for which a development project using a loan could be completed. On the other hand, for creditor nations long-term debt has a high risk associated with it.

Table 4-4 shows the debt-servicing capability of borrowers. In 1983 the balance of debts reached 29.9% in terms of percentage of GNP. Debt-Service Ratio (DSR)[14] and Interest-Service Ratio (ISR)[15] reached 19.1% and 10.0% respectively. The DSR and ISR of major developing country debtor nations were even larger than above. It is said that the DSR and ISR are the most useful indices to represent the debt-service capability of nations. A DSR over 20% is typically used as an indicator of potential debt repayment problems. This implies that most debtor nations are in a dangerous situation and a major default could occur.

---

[14]DSR = Debt Repayment/Exports

[15]ISR = Interest Payment/Exports

TABLE 4-4
BALANCE OF LONG-TERM DEBTS AND DEBT-SERVICE CAPABILITY IN THE DEBTOR NATIONS

($ billion)

		1974	1976	1978	1979	1980	1981	1982	1983
DRS Countries (105)	Balance of Long-term Debts	135.4	194.9	301.2	355.1	411.6	470.1	525.6	597.6
	Balance of Long-term Debts ——— (%) Exports	72.2	92.6	110.5	100.0	88.6	94.0	113.7	144.6
	Balance of Long-term Debts ——— (%) GNP	13.8	16.4	19.6	19.3	18.7	19.8	24.1	29.9
	DSR (%)	8.5	10.1	15.4	15.8	13.5	14.8	17.2	19.1
	ISR (%)	2.9	4.0	5.2	5.9	6.2	7.1	8.9	10.0
Major Debtor Nations (12)	Balance of Long-term Debts	85.7	122.7	183.8	216.2	249.1	287.3	318.7	367.4
	Balance of Long-term Debts ——— (%) Exports	96.8	121.0	134.3	122.8	108.0	105.9	128.3	167.0
	Balance of Long-term Debts ——— (%) GNP	13.3	15.8	18.0	17.5	17.1	17.7	22.6	29.3
	DSR (%)	11.2	13.6	21.0	22.1	17.9	18.0	21.0	22.1
	ISR (%)	3.9	5.4	7.0	7.7	8.3	8.9	11.5	12.9
	Note: DSR = Debts Repayment/Exports ISR = Interest Payment/Exports								

Source: The World Bank, World Debt Tables, 1984-85

From the point of view of lenders (mainly private banks), there is always uncertainty associated with funds that might never be paid back. U.S. private banks, which are the biggest lenders in the free world to debtor nations, were in excess of 100% in terms of ratio of credit to equity capital[16] before Mexico's 1986 debt repayment problem (see Table 4-5). One bank (Manufactures Hanover) was over 250%. The figures are for only five major debtor nations; numbers would be higher if other debtors were added. Possibility existed that many U.S. banks would face immediate financial difficulties after Mexico's default. On the other hand, Japanese banks had kept a low ratio of less than 100% credit to equity, in contrast to U.S. banks[17]. Therefore, U.S. banks are more susceptible to developing country debt problems.

The debtor nations' problems have a tremendous impact not only on the countries directly involved, but also on the world's money markets, which means that a monetary crisis or panic could conceivably take place. This could start with a repudiation of debt by a large debtor country and lead to default claims in creditor countries.

---

[16]This ratio shows whether banks will write off their loan by their own equity capital and indicates whether a bank faces financial difficulties.

[17]In 1984, most banks were in 50-90% except for Tokyo Bank (210%) which is authorized foreign exchange.

TABLE 4-5
RATIO OF CREDIT TO EQUITY CAPITAL IN THE U.S. BANKS

	Argentina (%)	Brazil (%)	Mexico (%)	Venezuela (%)	Chile (%)	Total	
						Ratio of Credit to Equity Capital (%)	Balance of Credit ($ billion)
Citibank	18.2	73.5	54.6	18.2	10.0	174.5	10.5
Bank of America	10.2	47.9	52.1	41.7	6.3	158.2	7.6
Chase Manhattan	21.3	56.9	40.0	24.0	11.8	154.0	6.5
Morgan Guaranty	24.4	54.3	34.8	17.5	9.7	140.7	4.4
Mannfac. Hanover	47.5	77.7	66.7	42.4	28.4	262.7	6.8
Chemical Bank	14.9	52.0	60.0	28.0	14.8	169.7	4.2
Continental Illinois	17.8	22.9	32.4	21.6	12.8	107.5	2.7
Bankers Trust	13.2	46.2	46.2	25.1	10.6	141.3	2.7
First National Chicago	14.5	40.6	50.1	17.4	11.6	134.2	2.3

Source: Giiti Miyazaki, Seki Keizai Wo Doumiruka

Banks which declare a default are able to call their loans in before the due date. Particularly, in a syndicate-loan bankers' sanctions have an important effect: A loan called against a debtor nation unable to make immediate payment would create more financial crisis when the debtor nation is forced to borrow further to repay the debt. This situation, in fact, will be avoided because the member banks with the syndicate-loan can accept a rescheduling agreement with debtor nations.

Examples of rescheduling agreements occurred with in the April 1981 debtor problems of Poland, and the case of Mexico in August of 1982. In the case of a moratorium or a repudiation by either Poland or Mexico, U.S. banks with loans to these developing countries might have gone into bankruptcy.

Mexico's debt crisis in 1986 was avoided by providing an emergency loan and a rescheduling agreement. Loans totaled $12 billion and included $1.6 billion from the IMF, $1.9 billion from the World Bank, and $6 billion from private banks.

Several proposals for possible solutions to the debtor nations' problems have been made. One, the Baker proposal, made by the former Secretary of US Treasury James Baker III (1985 to 1988), set forth the idea "...that countries would receive new lending from the banks and the official creditors in return for undertaking programs of economic adjustment and reform" [Ref. 9]. Another, made by US Treasury Secretary

Nicholas Brady in March 1989, suggested that governments of industrialized countries should plan to devote at least $30 billion to $40 billion over the next three years to help buy back third world debt at discount. But these proposals have not settled this problem. For example, recent academic research on loan buybacks suggest that a substantial amount of funds will end up in the hands of private banks, without benefiting debtors [Ref. 10].

Debtor nations have had little choice but to impose harsh austerity measures in order to comply with the bailout programs. In general, conditions of bailout loans included

1. making an effort towards equilibrium in the balance of international payments,
2. cutting public spending and adopting tax increases and
3. seeking wage concessions consistent with productivity.

Debtor nations have found it very difficult to implement these conditions politically, and economically. Contradictions exist between some austerity measures and economic growth.

As far as capital flight[18] in the debtor nations is concerned, nearly half of the capital outflow is a result of inflationary hedging. Under the present circumstances, restricting capital flight will be difficult even though severe conditions are currently imposed, because interest

[18]The ratio of a capital flight to a capital inflow was 41.1% in 1979-1982 [Ref. 11]

rates in the U.S. and Europe are high and attractive to debtor nations seeking to increase their capital reserves. Bailout loans are often placed in foreign accounts to preserve the capital and earn interest. In order to prevent capital flight, debtor nations are forced to increase interest rates. This inhibits investment. Moreover, the higher the risk associated with investments, the higher the interest rate typically charged, further inhibiting investment. At the same time, primary product prices and world economic growth are low; and exports of debtor nations are declining.

Attenuating factors for this problem include exempting debtor nations from interest payments and increasing the supply of loanable funds from the IMF and the World Bank.

Up to 1985 the increase in debt due to higher interest rates amounted to $220 billion in the debtor nations [Ref. 12]. Reducing the interest burden is difficult for lenders. However, connecting interest payments with economic growth rates could be a move in the right direction[19]. Originally the IMF and the World Bank were started with the purpose of developing the world economy and promoting international monetary collaboration and trade. Today their mission appears to deal primarily with the debt problem.

---

[19]Negative growth rates would presumably result in zero interest payments, although the incentive structure created by such a proposal should be carefully examined.

V. LESSONS OF HISTORY

Problems such as an insufficient flow of funds to debtor nations are not unique, and they are potential stumbling blocks for the further development of the world economy. Here, a look will be taken at the world economy from the 19th century to show how essential a smooth circulation of international funds and free trade system are for the stable development of the world economy.

A. CIRCULATION OF FUNDS AND FREE TRADE IN THE 19TH CENTURY

The international circulation of funds and the free trade system operating in the 19th century was primarily supported by Great Britain and played a major role in the smooth development of the world economy[20]. Great Britain underwent an industrial revolution from the latter half of the 18th century to the first half of the 19th century and expanded production, in effect becoming the "world's factory."

Great Britain established itself as an industrial power in the latter half of the 1890s. Thanks to its industrial might, Great Britain was able to encourage a free trade system. Despite being an overwhelmingly strong industrial power, Great Britain never demanded that its partner countries adopt

---

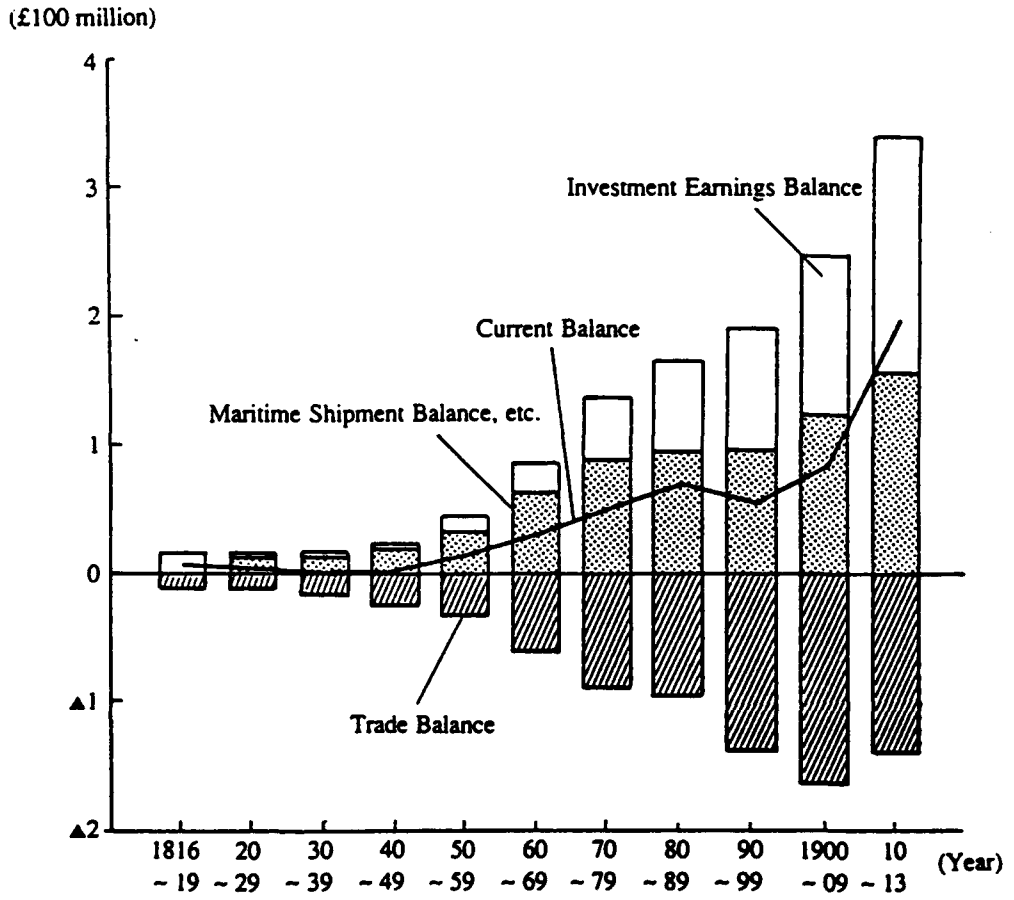
[20]For a good discussion of Great Britain's role, see Yasaburou, Kawasaki. "Kyoukou," Tokyo: Iwanami Shoten Inc., 1984.

similar open trade systems. Neither did it urge the elimination of trade restrictions which would have been to its advantage and ultimately would have created even more opportunities for trade in the world as a whole. Particular note should be taken of this. At the time, Great Britain accounted for about two-tenths of global trade, and its free trade policy contributed greatly to the growth of global trade and the world economy.

The real growth rate of global trade was an average annual 2.8% from 1820 to 1840; the figure for the world economy during that same period was 2.9%. From 1840 to 1870 the growth of global trade and the world economy increased, reaching 5.1% and 3.3% respectively. [Ref. 13]

Great Britain's trade balance was in the red starting in 1816, the first year that international balance of payment statistics were established. With the establishment of a free trade system through such means as the abolition of the Corn Laws[21] and the reduction of tariffs, deficits in merchandise trade grew much larger. Nevertheless, the current account surplus grew, due to the surpluses on the higher maritime shipping (services) account and investment earnings account (see Figure 5-1). Great Britain thus became the world's largest creditor nation and began exporting capital throughout

[21]The law which restricted crop imports and exports in Great Britain.



Source: Yasaburou, Kawasaki. "Kyoukou"

Figure 5-1
Great Britain's Current Balance Since the 19th Century

the world. A characteristic feature of this period is that Great Britain circulated funds, meeting the burgeoning demand for funds by the U.S. and other countries which had industrialized at a later date. In particular, there was a high rate of both private and government spending on "social capital" such as canals and railroads, which promoted the development of infrastructure, encouraged investment and production and contributed to industrialization.

B. THE WORLD ECONOMY BETWEEN THE WARS AND THE GREAT DEPRESSION

The U.S. began full-scale industrialization in the mid-19th century after the Civil War and expanded its production capacity. From 1860 to 1880 the manufacturing production index rose 2.6 fold [Ref. 14]. At the time, the U.S. imported most of its capital, as well as capital goods such as materials for railroad construction, from Great Britain, thereby providing the foundation for its future industrial production. As a result, exports grew.

Starting in the 1870s, although there were some ups and down due to business cycles, the U.S. enjoyed surpluses in merchandise trade. This trend became more marked from World War I, when its surplus on the current account grew further. In the 1910s, the U.S. recorded current account surpluses of about an average annual 2.8% of its GNP and after World War I became the world's largest creditor nation [Ref. 14].

In Great Britain's case, the principal form of capital exports was investment in securities leading to augmentation of the foundations for production in other nations, such as the construction of railroads and canals. The exports of capital from the U.S. mostly constituted purchases of already issued securities sold by Great Britain for raising wartime funds, investment in securities for postwar programs such as the Dose Bonds, and other securities investment not directly tied to production. Further, the fatigue of Europe after the Great War and the agricultural recession in Latin America and elsewhere following upon a slump in the market for primary products increased the risks of foreign investment. Thus, there were few places to invest overseas.

The U.S. economy, on the other hand, was doing well, so American funds tended to be used for investment in the U.S. The concentration of capital in the U.S., which should have been a capital exporter, and the failure of funds to circulate smoothly for the reconstruction of Europe coupled with the economic development needs of Latin America may be considered to have fostered a weakness in the economic foundations of the countries in those regions.

Concurrently, there was a boom in speculative stock investment based on credit transactions reflecting the good performance of commerce and industry in what has been called

the "Roaring 20s"[22]. In 1929, however, a chain reaction of plummeting stock prices triggered by credit uncertainties in a few companies, caused financial institutions to simultaneously move to reclaim debts. The domestic money supply shrank and the domestic economy tumbled into a depression.

From 1921 through 1929, the money supply expanded at an annual rate of 2.7 %, slightly less rapidly than the growth in the output of goods and services. Beginning in 1930, monetary policy suddenly shifted. The supply of money declined by 6.9 % during 1930, by 10.9 % in 1931, and by 4.7 % in 1932. Banks failed, and the Federal Reserve Bank also failed to act as a lender of last resort to head off the huge decline in the supply of money. From 1929 to 1933, the quantity of money in circulation declined by 27 %. [Ref. 15]

To deal with this depression, the American government instituted trade restrictions through a high tariff policy based on the Smoot-Hawley Act to protect domestic industries and further raised the prime rate in October 1931 from 1.5% to 3.5% to maintain the gold standard [Ref. 16]. These measures only served to further deepen the depression. As a result, U.S. trade shrank 70% from 1929 to 1932 [Ref. 16].

---

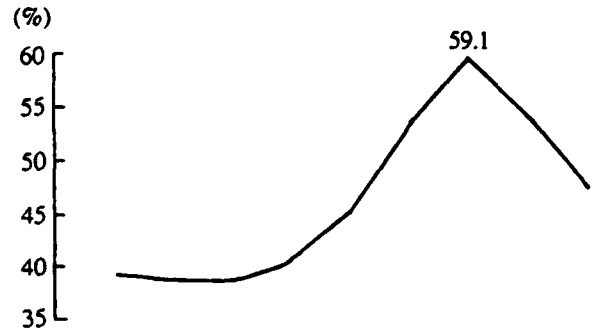
[22]For a good discussion of this stock boom in the U.S., see White, Eugene N. "The stock Market Boom and Crash of 1929 Revisited," The Journal of Economic Perspectives, p.67-83, Spring 1990.

In capital transactions in the 1930s, both direct investment and securities investment fell, causing the long term capital balance to change from a deficit of an average annual $560 million in 1928 to 1929 to a surplus of an average annual $50 million in 1930 to 1933; so capital exports stagnated. In addition, the high tariff policies of the U.S. stirred up a chain reaction of retaliatory measures by other countries, causing a reduction in global trade and inhibiting the flow of global capital.

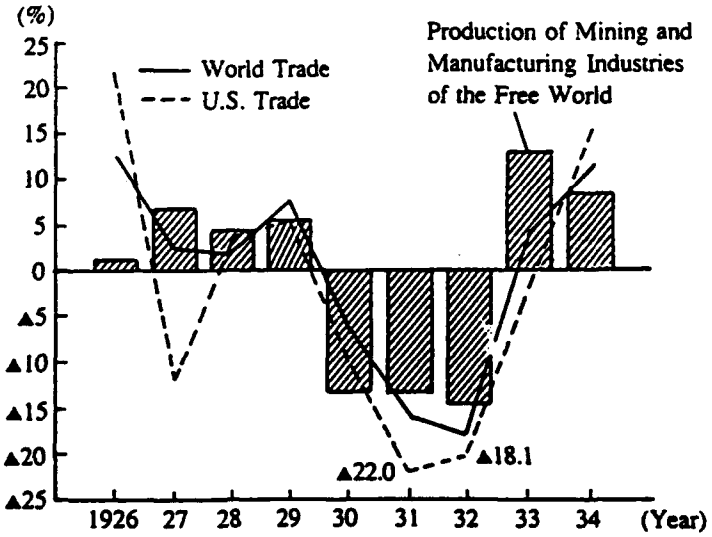
This in turn caused many countries with weak economic foundations, in particular the Latin American countries with their debt problems and the agricultural countries of Eastern Europe to suffer from a large decrease of exports and thus debt crises. The global economy stagnated (see Figure 5-2).

The lesson to be drawn from the above cases of Great Britain and the U.S. is that the free trade system and the smooth circulation of funds appear to be the keys to global economic development through the establishment of a common economic foundation among different countries. Thus a warning bell must be sounded whenever there is rising protectionism, and/or significant debtor countries struggle under the burden of repaying their debts.

(1) Dutiable U.S. Tariff Rates



(2) Real Rates of Increase and Decrease in World Economy and Trade



Source: Rostow, W.W. "The World Economy: History and Prospect"

Figure 5-2
U.S. Tariff Rates and U.S. Status in the World Economy and Trade around the Great Depression

VI. A COMPARISON OF THE 1920s AND THE 1980s

There are similarities between the economic climates of the 1920s and the 1980s. This chapter examines some of those similarities, as well as some differences.

Figure 6-1 contrasts some economic characteristics common to both periods. Ten categories are included:

1. The world monetary system
2. The balance of international payments
3. The declining price of primary products
4. Debtor nations' problems
5. The existence of hegemonic nation
6. Stock market activity
7. Foreign investments
8. Interest-rate differentials
9. Rising tides of protectionism
10. The gestation period of fundamental innovation

In the first category of comparison, the collapse of the Bretton Woods system near the end of the Vietnam War was similar to the collapse of the Gold Standard system after World War I. Moreover, new systems developed subsequent to the Gold Exchange Standard system and the Smithsonian monetary system have also collapsed.

In the second category, we can attribute most of the worsening in the balance of payments in Great Britain to the

Economic Situations	1920s	Today
-1- The World monetary system	• Gold Standard System (before WWI) ↓ • Suspend this system (gold embargo) ↓ • Gold-exchange Standard System (Cancellation of gold embargo) ↓ • Collapse	• Bretton Woods System (1944) ↓ • Nixon Shock (1971) ↓ • Smithsonian Monetary System (1971) ↓ • Collapse ↓ • Floating Exchange Rate System
-2- The Balance of international payments	• The increase of Great Britain's current account surplus and external assets (before WWI) ↓ • The Increase of the U.S. current account surplus and external assets the Increase of Great Britain's current account deficit and the decrease of its external assets (after WWI) ↓ • Disequilibrium	• The increase of the U.S. current account surplus and external assets (before the Vietnam War) ↓ • The increase of Japan's current account surplus and of the U.S. current account deficit (after the Vietnam War) ↓ • Japan became the biggest creditor nation in the world and the U.S. the biggest debtor in 1985 ↓ • Disequilibrium

Figure 6-1
The Economic Comparison of the 1920s and Today

Figure 6-1 (cont'd)

-3- The Declining price of primary products	• The increase of food production in Canada, Australia, and Argentina in the 1920s ↓ • The self-sufficient policy of food in Europe ↓ • The excessive level of agricultural product supply ↓ • Declining Price ↓ • The global recession of agricultural product	(Crude Oil) • Expansion of OPEC's market share Development of oil fields such as Mexico and the North Sea • Oil demand control policy in the world ↓ • The reduction of oil price (Other primary products) • Increase production in debtor nations ↓ • Supply glut ↓ • Declining price
-4- Debtor nations' problem	• The global recession of agricultural products ↓ • More critical in debtor nations problem ↓ • More critical recession of agricultural product in East Europe ↓ • Financial crisis in Europe (1931) ↓ • Great Britain's secession of gold Standard system	• The declining price of primary products • The high-dollar, high interest rate (before 1985) ↓ • Debt burden worsened dramatically ↓ • Oil money withdraw from debtor nations ↓ • Japan money is being invested in the U.S. and the EC capital market. ↓ • More critical situation in debtor nations

Figure 6-1 (cont'd)

-5- The existence of hegemonic nation	Great Britain ⟶ The U.S.	The U.S. ⟶ Japan or Germany ?
-6- Stock market	• Stock boom in the U.S. ↓ • The U.S. foreign investments were withdrawn from Europe. ↓ • The global dollar shortage	• Increased ability of self-financing of Japanese companies • Interest-rate differential ↓ • Japan's stock boom ↓ • Japan's money might be withdrawn ?
-7- Foreign investments	The U.S. Money ↓ Germany ↓ War reparations ↓ European countries ↓ War debt payments ↓ Back floor to the U.S. ↓ Developing countries ↓ Increased production capacity of agricultural products ↓ Excessive level of agricultural products supply ↓ Global recession of agricultural product	Japan Money ↓ The U.S. ↓ Government budget deficit has been financed ↓ Increased purchasing power ↓ Increase of imports in the U.S. ↓ Developing countries

Figure 6-1 (cont'd)

-8- Interest-rate differential	• High interest-rate in Great Britain • Low interest-rate in the U.S. (before 1928) ↓ • Acceleration of the U.S. Foreign investments ↓ • High interest-rate in the U.S. ↓ • Withdrawal of the U.S. Foreign investments	• High interest-rate in Japan • Low interest-rate in the U.S. ↓ Acceleration of Japan's foreign investments
-9- Rising tide of protectionism	• Disequilibrium in the balance of international payments ↓ • Protectionism ↓ • Barter trade, Bloc economy, Exchange control, etc.	• Disequilibrium in the balance of international payments ↓ • Rising tide of protectionism
-10- Gestation period of fundamental innovation	• Development of industrial and agricultural technology ↓ • The Second Industrial Revolution ↓ • Increase of industrial and agricultural production ↓ • Supply-demand imbalance	• Industrial development of communication, computer, biotechnology, nuclear power, and so forth ↓ • The Third Industrial Revolution

increasing deficit in the current account due to rebuilding after World War I. Similar deficits were experienced by the U.S. after the Vietnam War. In both cases increased government spending for wars resulted in deficits and in the crowding out of private domestic investment.

Category three presents a similarity between the 1920s and the 1980s in falling prices of primary products. In category four as mentioned in Chapter IV, a financial crisis today will be avoided as long as bridge loans from the IMF, the World Bank, and private banks are extended to debtor nations. In category five, the position of the U.S. as a hegemonic nation in the world today is gradually declining, but whether that power will be transferred to Japan or Germany is unclear.

A similarity can also be found in movements of the stock market, but conditions are not such that Japan money would be withdrawn from the U.S. It is more likely that such foreign investments would be recalled, if, for example, there is a shrinkage of interest-rate differential between the U.S. and Japan.

Foreign investments from Japan to the U.S. have the effect of raising purchasing power in the U.S. As a result, U.S. imports increase. On the one hand, there is no doubt that the purchasing power of the U.S. contributes towards the growth of world trade. On the other hand, since, as a result of Japan money being concentrated in the U.S., Japan money in

developing countries remains limited, thus it does not contribute to the industrial modernization in these countries. This point is a warning factor, which means that debtor nations' problems might get worse, and the lack of Japanese investment in developing countries might yet create a world financial crisis.

Real-interest rates in the U.S. remain relatively high. Some agreements between both governments might be reached on concerted action to encourage continued Japanese investment in the U.S. But the long-lasting effect of such action is questionable, because forced restriction of monetary growth to dampen the excessive pace of economic activity would cause Japan's interest rates to rise. This is an important factor which suggests the possibility of Japan money's withdrawal from the U.S. market.

The rising tide of protectionism, category nine, depends on the U.S. Congress and Japanese negotiators. The House of Representatives has a stronger connection with the electorate than the Senate and has threatened the application of U.S. Super Article 301[23] when Japanese manufactured goods make particularly sharp advances in U.S. markets. As long as

---

[23]The USTR cites Japan whether non-tariff barriers to trade exist in Japan with the Super Article 301. For example, in May 26, 1989, from the 34 items which were the subject of the annual report of the USTR, three items - super computers, satellites and forestry products - were decided on as authorization items based on the Super Article 301.

disequilibria in the balance of international payments are not resolved, protectionist sentiment in the U.S. Congress may be intensified. Once the protectionist mood takes hold, it is difficult to resist its pressure (witness the Smoot-Hawley Act of 1930).

In order to clarify connections between the economic environment of the 1920s and the 1980s, let us examine some economic conditions in the 1920s by using a flow chart. Figure 6-2 shows the mechanism that may have led to the Great Depression. Part one describes the stage from the end of World War I to the early 1920s and part two describes the stage from the early 1920s to 1928.

Part one in the Figure 6-2 shows that there were four economic factors:

1. The appearance of the U.S. as a newly industrializing country.
2. The global recession due to the excess supply of industrial and agricultural products.
3. The recession in agriculture.
4. The collapse of the Gold Standard system.

Part two shows today's debtor nations' problems overlapping with the debtor nations' problems of the 1920s. The relationship between the high yen and the weakened dollar of 1991 can be likened to that of the high dollar and the weakened pound in the 1920s. The economic situations shown in

Figure 6-2
The Mechanics Behind the Great Depression (Part 1)
(From WWI to the early 1920s)

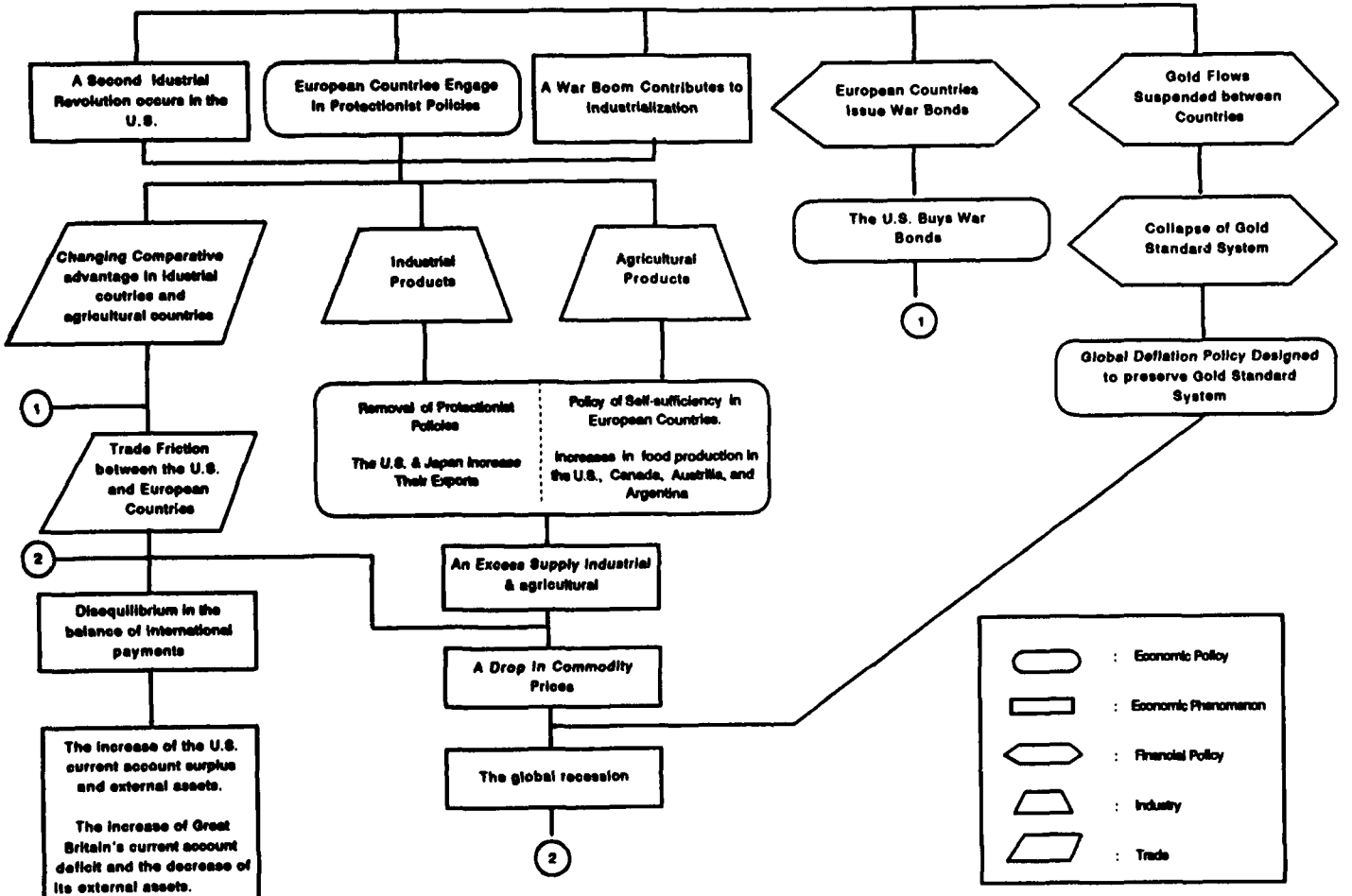
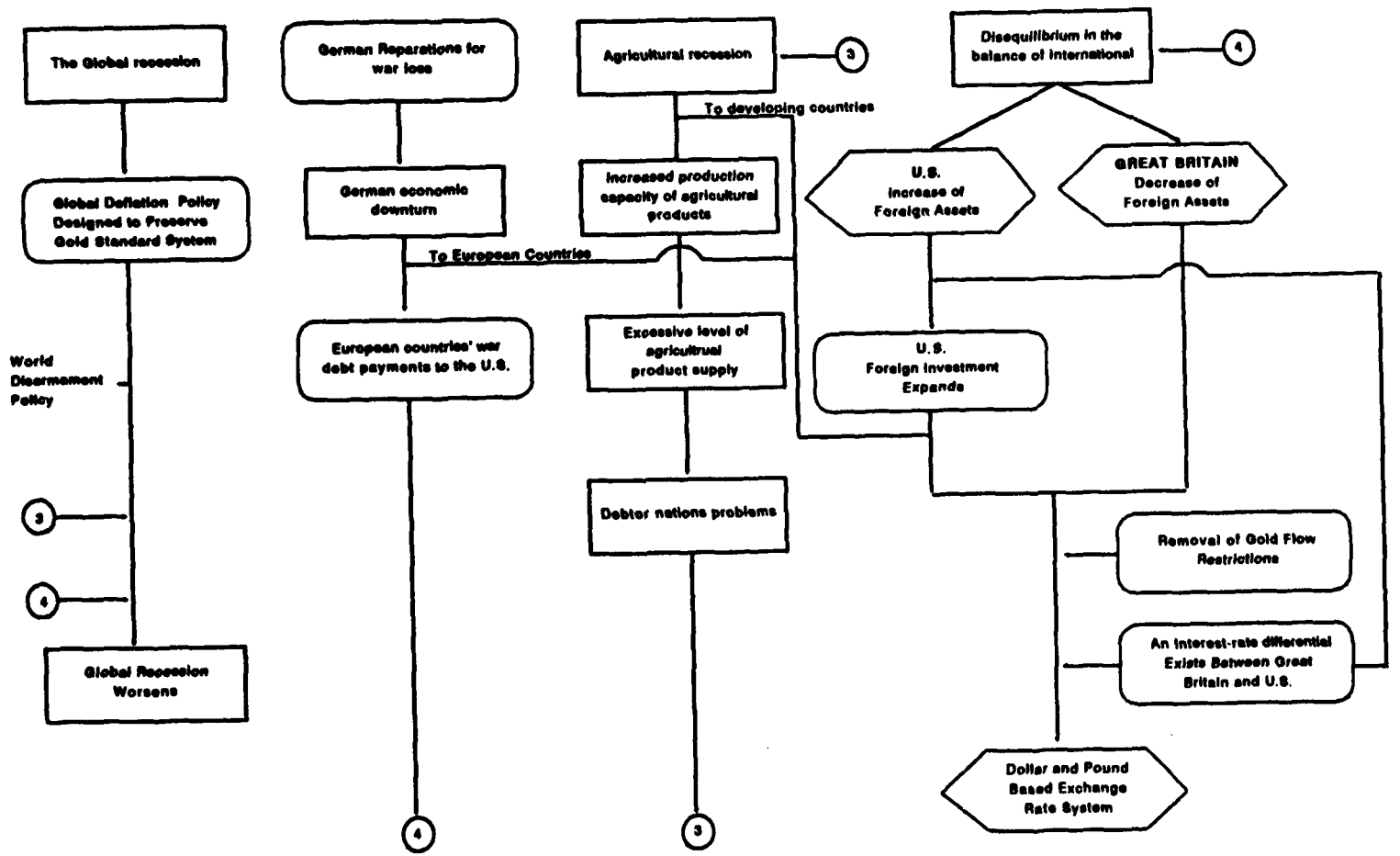


Figure 6-2
The Mechanics Behind the Great Depression (Part 2)
(From the early 1920s to 1928)



categories six through eight in Figure 6-1 appeared until 1928. Part two fit with the 1980s economic situations.

Consider U.S. capital investments in detail. Figure 6-3 shows the trends of the international balance of payments in the U.S. from 1921 to 1932. The U.S. trade balance moved toward a position of underlying surplus after World War I. Most U.S. exports before the war were primary products, mainly agricultural commodities; after the war, exports of industrial products increased.

U.S. capital investment over the period 1921-32 was substantial. In particular, long-term capital investment from 1924 through 1928 increased sharply. The supply of dollars from these investments in European countries played an important role in reconstructing and maintaining a gold-standard system. The main destinations of U.S. external investments in those days were Germany and Latin America (see Figure 6-1 and 6-2).

U.S. capital invested in Germany was used mainly for reconstruction. As a result of these investments, funds poured back to the U.S. through the European countries' war debt payments. An important role of capital investment is to contribute to economic development in debtor nations. The U.S. investment in Latin America did not have the desired effect, because increased productivity in agriculture helped cause a global supply glut.

($ Million)

			1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Current balance	Trade balance		+1,976	+719	+375	+981	+683	+378	+ 680	+1,037	+842	+782	+ 333	+288
	Invisible balance		- 382	- 77	+173	- 6	+ 26	+ 76	+ 41	- 10	- 56	- 47	- 158	-129
	Total		+1,594	+642	+548	+975	+709	+454	+ 721	+1,027	+786	+735	+ 175	+159
Capital balance	Long term	The U.S. external assets	- 588	-822				-821	- 987	-1,310	-636	-364	+ 128	+251
		Foreign assets in the U.S.	- 4	+ 7				+ 95	- 50	+ 463	+358	+ 66	+ 66	- 26
		Long term capital balance	- 592	-815	- 45	-700	-570	-726	-1,037	- 847	-278	-298	+ 194	+225
	Short term	The U.S. external assets			- 82	-109	- 46	- 36	- 349	- 231	-200	-191	+ 628	+227
		Foreign assets in the U.S.			+ 49	+228	- 60	+455	+ 934	- 117	+196	-288	-1,265	-673
		Short term capital balance			- 33	+119	-106	+419	+ 585	- 348	- 4	-479	- 637	-446
	Total		- 592	-815	- 78	-581	-676	-307	- 452	-1,195	-282	-777	- 443	-221
	Note: Blanks mean unknown													

Source: Yasaburou, Kawasaki. "Kyoukou."

FIGURE 6-3
The Trend of International Balance of Payments
(1921 - 1932)

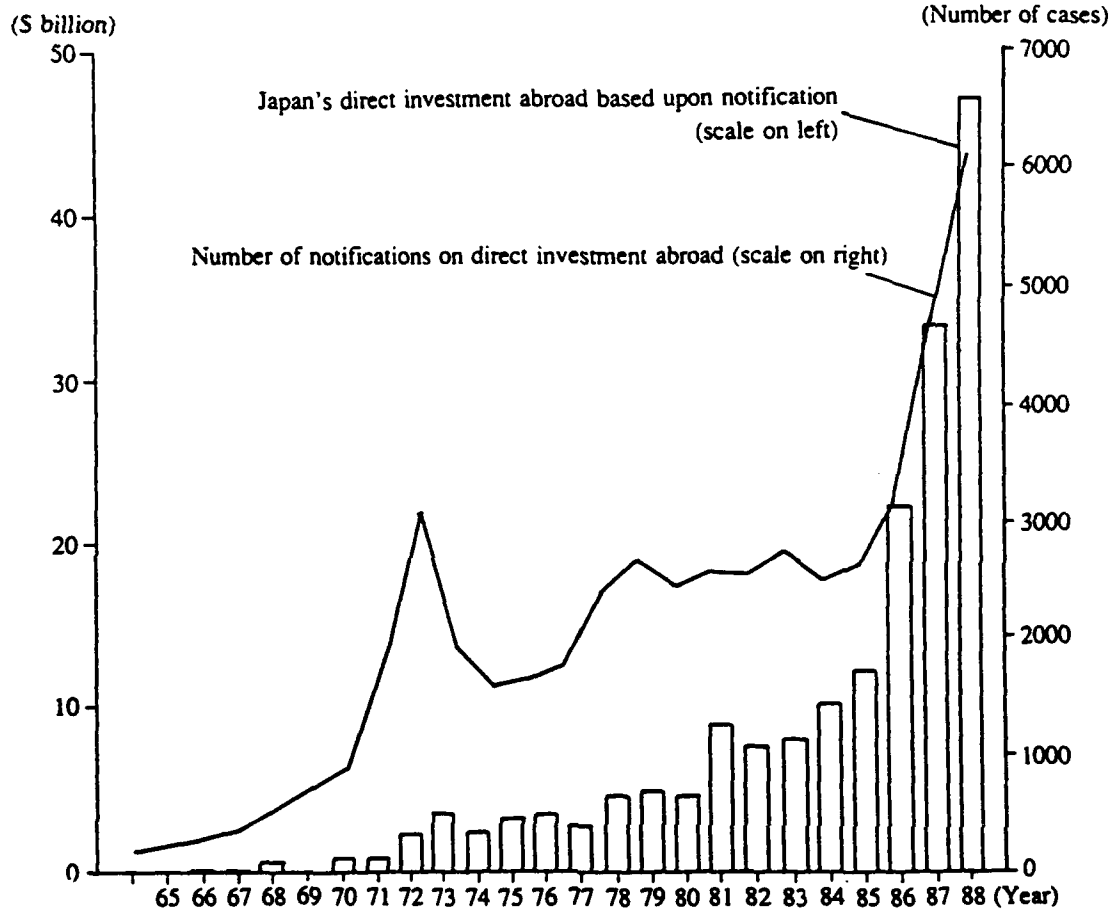
With the stock market boom in 1928, the U.S. absorbed both domestic and overseas funds. U.S. external investments sharply decreased from the middle of 1928 (see Figure 6-3). In those days, the U.S. interest rate was kept lower than that of Great Britain; but U.S. monetary authorities pursued a more vigorous tight-money policy in an attempt to restrict a speculative stock boom which began to absorb funds. The shrinkage of the interest-rate differential between the U.S. and Great Britain due to the tight-money policy exacerbated the slowdown in U.S. external investments.

According to part two in Figure 6-2 and the discussion above, the world economy appears to have been barely sustained by U.S. foreign investments. A major trigger of the Great Depression was the withdrawal of U.S. foreign investments from Europe and developing countries when the U.S. stock market collapsed. Moreover, many politicians at the time did not anticipate the potential destructiveness of higher tariff rates, and many economists did not forsee the consequences of reductions in the money supply.

VII. THE ECONOMIC ROLES FOR JAPAN

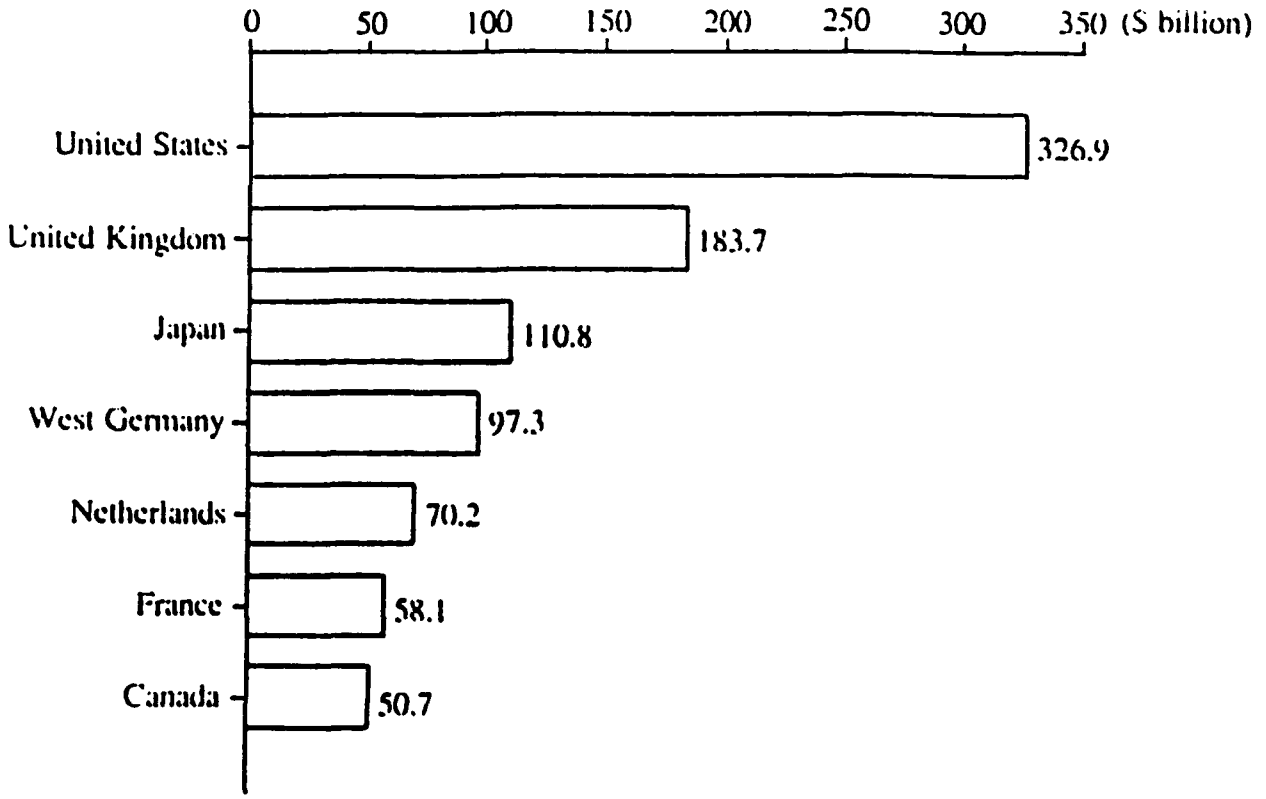
Throughout the preceding chapters the emphasis has been placed on Japan money which is currently helping to sustain U.S. federal budget deficits. The budget consists mainly of private capital that could be withdrawn due to economic uncertainties in the future. Two methods are considered to avoid a potential crisis in the event Japan money is withdrawn from the U.S.

Japan's primary role in future world economic and trade relations will be in expanding its imports and, through its global companies, making direct investments abroad. Because of the high-yen in recent years, Japan's direct investment abroad has been expanding quite rapidly (see Figure 7-1). Japan now ranks third in the world in terms of the outstanding balance of direct investment abroad (see Figure 7-2). Direct investment abroad provides significant benefits to the economy of the country concerned; through creation of employment, transfer of technology and the development of new industries. Overseas production through direct investment also makes a contribution to the country concerned through the transfer of managerial expertise. This is not simply a capital transfer



Source: Economic White paper of 1989

Figure 7-1
Trends in Japan's Direct Investment Abroad



Source: Economic White paper fo 1989

Figure 7-2
Outstanding Balance of Direct Investment Abroad by Selected Countries (as of the end of 1988)

like security investments, but rather a transfer of human capital.

As of the end of 1988, net overseas assets of Japan were about $290 billion [Ref. 17]. Given an average investment return of 8% or 9%, this represents an income of about $25 billion per year. This is equivalent to about a third of the current account surplus. Most direct investments resulting in capital flows from foreign nations are high yield; but the average yield on Japanese direct investment is surprisingly low. However, the objective of "short-term procurement, [but] long-term management [Ref. 18]" - has contributed to a dramatic increase in investment profitability in the last few years. Even so, returns remain low when compared to the potential return represented by alternative assets. As investment matures, however, investment profits will contribute significantly to an improvement in the balance of payments.

Japan is likely to remain a capital exporter for the following reasons [Ref. 19]:

1. Japan is expected to have excessive savings deposits from now into the 21st century.
2. There are nations, such as developing nations with a strong demand for capital.
3. Other developed nations such as Germany which could provide investment capital have pressing domestic concerns requiring that capital.

It is unclear if other developed countries can become capital exporters or not; but it is quite natural for Japan, with large trade surpluses and a high savings rate to supply capital.

Japan's second role will be in dealing with matters which cannot be resolved solely by the market mechanism or free trade system, such as economic cooperation (see Chapter III). One example of this is the contribution to the stability of the economies of the developing countries. To achieve stability and sustain growth in the economies of developing countries, especially of the debtor nations, the adoption of suitable development policies is important. Providing aid tailored to the diverse development needs of these countries is essential for economic cooperation.

Economic growth in developing countries relies in part on the actions of the developing countries themselves; but increases in direct investment accompanying technology transfers, expanded trade, and economic cooperation would seem to be contributions Japan can make. The global economy, while facing various problems, is speeding through the 1990s on the way to a new century of unprecedented development. Japan has steadily strengthened its position in the world economy and, along with this, is being looked upon with increased expectations regarding its role in promoting the smooth and stable development of world trade. It is incumbent upon Japan

to be aware of this and to continue to contribute positively to the stability and growth of the international economy while giving full consideration to the economic lessons of history.

LIST OF REFERENCES

1. Economic Planning Agency. "The Economic White Paper of 1990," p. 15, Tokyo: The Ministry of Finance Press, 1990.

2. The Ministry of International Trade and Industry. "The White Paper on International Trade 1990," p. 347, Tokyo: The Ministry of Finance Press, 1990.

3. Economic Planning Agency. "The Economic White Paper of 1987," p. 59, Tokyo: The Ministry of Finance Press, 1987.

4. The Ministry of International Trade and Industry. "The White Paper on International Trade 1990," p. 139, Tokyo: The Ministry of Finance Press, 1990.

5. The Ministry of International Trade and Industry. The White Paper on International Trade 1990," p. 140, Tokyo: The Ministry of Finance Press, 1990.

6. Ashai-sinbun (newspaper) June 8 1986.

7. The Ministry of International Trade and Industry. "The White Paper on International Trade 1986," p. 45, Tokyo: The Ministry of Finance Press, 1986.

8. The Ministry of International Trade and Industry. "The White Paper on International Trade 1990," p. 125, Tokyo: The Ministry of Finance Press, 1990.

9. Sachs, Jeffrey D. "A Strategy for Efficient Debt Reduction," The Journal of Economic Perspectives, p. 20, Winter 1990.

10. Bolouw, Jeremy and Rogoff, Kenneth. "Cleaning Up Third World Debt Without Getting Taken to the Cleaners," The Journal of Economic Perspectives, p. 41, Winter 1990.

11. The Ministry of International Trade and Industry. "The White Paper on International Trade 1986," p. 246, Tokyo: The Ministry of Finance Press, 1986.

12. The Ministry of International Trade and Industry. "The White Paper on International Trade 1986," p. 93, Tokyo: The Ministry of Finance Press, 1986.

13. Rostow, W. W., "The World Economy: History & Prospect," p. 67, Austin: University of Texas Press, 1978.

14. Yasaburou, Kawasaki. "Kyoukou," p. 135, Tokyo: Iwanami Shoten Inc., 1984.

15. Gwartney, James D. and Stroup, Richard L. "Macroeconomics: Private and Public Choice." 4th ed. Florida: Harcourt Brace Jovanovich, Inc., 1987.

16. Kasugai, Kaoru. "Keiki Jyunkan," p. 63, Tokyo: Bungadou, 1982.

17. Economic Planning Agency. "The Economic White Paper of 1989," p. 192, Tokyo: The Ministry of Finance Press, 1989.

18. The Ministry of International Trade and Industry. "The White Paper on International Trade 1990," p. 253, Tokyo: The Ministry of Finance Press, 1990.

19. Economic Planning Agency. "The Economic White Paper of 1990," p. 122, Tokyo: The Ministry of Finance Press, 1990.

BIBLIOGRAPHY

1. Bulow, Jeremy and Rogoff, Kenneth. "Cleaning up Third World Debt Without Getting Taken to the Cleaners." The Journal of Economic Perspectives, Winter 1990.

2. Economic Planning Agency. "The Economic White Paper of 1986." Tokyo: The Ministry of Finance Press, 1986.

3. Economic Planning Agency. "The Economic White Paper of 1987." Tokyo: The Ministry of Finance Press, 1987.

4. Economic Planning Agency. "The Economic White Paper of 1988." Tokyo: The Ministry of Finance Press, 1988.

5. Economic Planning Agency. "The Economic White Paper of 1989." Tokyo: The Ministry of Finance Press, 1989.

6. Economic Planning Agency. "The Economic White Paper of 1990." Tokyo: The Ministry of Finance Press, 1990.

7. Hirota, Shirou and Saitou, Hiroshi. "Zaiseigaku Kougi." Tokyo: Yuhikaku Inc., 1986.

8. Gwartney, James D. and Stroup, Richard L. "Macroeconomics: Private and Public Choice." 4th ed. Florida: Harcourt Brace Jovanovich, Inc., 1987.

9. Kasugai, Kaoru. "Keiki Jyunkan." Tokyo: Bungadou, 1982.

10. Kawaguti, Shinji. "Kinyuron Nyumon." Tokyo: Syunzyusya Inc., 1986.

11. Kinoshita, Kazuo and Oukuma, Ichirou. "Zaiseigaku" (1). Tokyo: Yuhikaku Inc., 1970.

12. Masaru, Yoshitomi. "Nihon Keizai." Tokyo: Toyokeizai Sinpousya, 1989.

13. Miyazaki, Giiti. "Sekai Keizai Wo Doumiruka." Tokyo: Iwanami Shoten Inc., 1986.

14. Nakamoto, Hirotugu and Ishibashi, Haruo. "Keizaigenron." Tokyo: Hougaku Shoin, Inc., 1986.

15. Nicholson, Walter. "Intermediate Microeconomics: And Its Application." 5th ed. Florida: The Dryden Press, 1990.

16. Nihon Keizai Shinbun, Inc. "Zeminaru Nihon Keizai Nyumon." Tokyo: Nihon Keizai Shinbun, Inc., 1985.

17. Nihon Keizai Shinbun, Inc. "Zeminaru Keizaigaku Nyumon." Tokyo: Nihon Keizai Shinbun, Inc., 1988.

18. Sachs, Jeffrey D. "A Strategy for Efficient Debt Reduction," The Journal of Economic Perspectives, p. 20, Winter 1990.

19. Rostow, W. W. "The World Economy: History & Prospect." Austin: University of Texas Press, 1978.

20. Sekiguti, Tuneo. "Nitibei Boueki Masatu No Kenkyu." Tokyo: Nihon Keizai Kenkyu Senta, 1988.

21. Stiglitz, Joseph E. "Economics of The Public Sector." 2nd ed. New York: W. W. Norton & Company, Inc. 1988.

22. Takeuti, Katunobu. "Zusetu Nihon No Zaisei." Tokyo: Toyokeizai Sinpousya, 1989.

23. Terasawa, Kouji. "Keizai Eigo Jiten." Tokyo: Nihon Keizai Shinbun, Inc., 1987.

24. The Ministry of International Trade and Industry. "The White Paper on International Trade Japan 1986." Tokyo: The Ministry of Finance Press, 1986.

25. The Ministry of International Trade and Industry. "The White Paper on International Trade Japan 1987." Tokyo: The Ministry of Finance Press, 1987.

26. The Ministry of International Trade and Industry. " The White Paper on International Trade Japan 1988." Tokyo: The Ministry of Finance Press, 1988.

27. The Ministry of International Trade and Industry. "The White Paper on International Trade Japan 1989." Tokyo: The Ministry of Finance Press, 1989.

28. The Ministry of International Trade and Industry. "The White Paper on International Trade Japan 1990." Tokyo: The Ministry of Finance Press, 1990.

29. The World Bank. "World Debt Tables," 1984-85 ed. Baltimore: The Johns Hopkins University Press, 1985.

30. The World Bank. "World Tables," 1988-89 ed. Baltimore: The Johns Hopkins University Press, 1989.

31. White, Eugene N. "The stock Market Boom and Crash of 1929 Revisited," The Journal of Economic Perspectives, Spring 1990.

32. Yasaburou, Kawasaki. "Kyoukou." Tokyo: Iwanami Shoten Inc., 1984.

INITIAL DISTRIBUTION LIST

1.	Defense Technical Information Center Cameron Station Alexandria, Virginia 22304-6145	2
2.	Superintendent Attn: Library, Code 52 Naval Postgraduate School Monterey, California 93943-5000	2
3.	Dr. Francois Melese Code 64/Me Defense Resouces Management Education Center Naval Postgraduate School Monterey, California 93943-5122	1
4.	Dr. Paul M. Carrick Code AS/Ca Department of Administrative Sciences Naval Postgraduate School Monterey, California 93943-5000	1
5.	Mr. Tetsutarou Nagaya 2-3-6 Shin-otou Atsuta-ku Nagoya-shi Aichi-ken 456 Japan	1
6.	Mr. Katsumasa Fujita Betsumyou Hokusei-chou Inabe-gun Mie-ken 511-04 Japan	1
7.	LCDR Hidetoshi Fujita Mr. Tetsutarou Nagaya (Kata) 2-3-6 Shin-otou Atsuta-ku Nagoya-shi Aichi-ken 456 Japan	3